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# HYGEIA

## The Health Magazine

Published by the AMERICAN MEDICAL ASSOCIATION

MARCH 1937


- Arthritis
- "Just Another Accident"
- Diphtheria: Unnecessary Death
- It's the Way You Walk
- Nature's G-Men
- Syphilis


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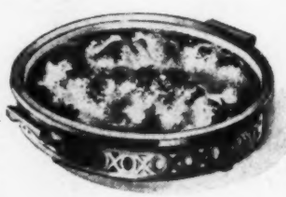

Season 1 can of tomatoes with salt, pepper, a few drops of onion juice—and sugar if liked sweet. Cover bottom of buttered baking dish with fine bread crumbs. Fill up with tomatoes and sprinkle top thickly with crumbs. Dot with bits of butter. Bake in hot oven (400°F.) until crumbs are brown. It's delicious!

### TOMATO STEAK

Heat 3 T fat in frying pan. Add 1 normal sized flank steak—well beaten to break the coarser fibres—and sear it brown on all sides. Arrange in Dutch oven and sprinkle with 1 large onion minced fine, 3 minced carrots, 2 minced white turnips, 2 cups canned tomatoes, 2 tsp. salt and ⅛ tsp. pepper. Cover tightly and bake in slow oven (275°F.) for 3 hours. Add water very sparingly, from time to time, to prevent burning. Gravy may be thickened if desired. A small pinch of thyme adds an additional spicy flavor, too. Serves 6. It's an economical dish the family will *like*.

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# "Can't go out—got a sore throat"

"SORE THROAT" in children is not to be taken too lightly. Sometimes it may be a simple congestion that accompanies the so-called common cold. But "sore throat" may also be the first sign of diphtheria, scarlet fever or pneumonia, and only a physician can tell. Frequently the few days lost in the early "home doctoring" of sore throat result in a seriously sick child, in the spread of the disease to others, and in greater medical expense than would arise if a physician were consulted whenever a sore throat persists for more than a few hours.

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# HYGEIA•

MARCH 1937

## THE HEALTH MAGAZINE

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Edited by Morris Fishbein, M.D.

Volume 15
Number 3


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# "Pneumonia!"

*"I'M AFRAID IT'S PNEUMONIA."*

In the next six or eight weeks, these words will be spoken more frequently than in any like period all the rest of the year. For this is pneumonia time—the period when the number of pneumonia cases reaches its peak—a season when it's especially important to be on your guard.

There is, as you know, no sure way to prevent pneumonia. Even if you've had it, you can have it again; for an attack of pneumonia does not build up immunity against future attacks.

Of course, certain familiar precautions—such as avoiding loss of sleep, excess fatigue, exposure, and wet feet—help greatly because they tend to conserve resistance.

But the most important thing to keep an eye out for is *any cold accompanied by fever*. Even a slight fever, perhaps only a degree above normal, may spell serious trouble.

When such a cold appears, it is no time to "play doctor," or hesitate, or trust to luck. Call your physician. If it is something less than pneumonia, he can often prevent complications and start setting things right. If it *is* pneumonia, the doctor can combat it today with greater confidence and more efficient medicinal agents than he has ever had before.

If called promptly, he can cure cases that could *not* have been cured ten or even five years ago.

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MARCH 1937

# Disaster by Floods

By W. W. BAUER

IN TIMES OF great disaster, such as the recent flood in the Ohio valley and elsewhere, all community resources are paralyzed or at least disturbed. As a result the menace of disease, which is held in check in normal times, becomes greater than ever.

When thousands of persons are driven out of their homes in the dead of winter, the greatest danger is exposure. This is most serious to the very old, the very young and the sick. Regardless of how resources are mobilized for aid from more fortunate communities, it is frequently impossible to avoid loss of life and serious illness in times of widespread disaster. It is for this reason that the American National Red Cross holds in reserve at all times a nation-wide organization for disaster relief which can be thrown into action at almost a moment's notice. In addition, the state and national governments stand ready to mobilize resources of army, navy, marine corps, coast guard and other organizations. Even that is not enough. It is necessary for the people of the whole country to rally to the aid of sufferers with assistance, especially financial.

As a result of exposure there is a great danger from pneumonia. Cold and wet lower the resistance. Hospital facilities are often wiped out along with the rest of the community, and the medical care of the sick becomes a difficult problem. Doctors and nurses are overworked. Medical supplies are scarce because of the extraordinary demand, which can never be foreseen.

Another great danger is typhoid. Under ordinary conditions, typhoid may be said to be almost a forgotten disease, prevalent only in rural districts. When rivers rise and flow over the country they carry with them much waste matter in the form of sewage which has been discharged into them. They pollute wells and destroy water supply systems, forcing the population to rely on sources of water of unknown purity or actual contami-

# EDITORIAL

nation. Hence the importance of rushing typhoid vaccine to the communities at once and administering it on a large scale.

Persons who enjoy privacy in their own homes are thrown into crowds, to live in close quarters not only with members of their own families but with numerous other persons. There is always a certain amount of communicable disease lurking in a community; thus disaster conditions throw the door wide open for its spread. Quarantine and the services of health department nurses are not available. Prevention of smallpox by vaccination is also an important emergency measure.

DISLOCATION of ordinary everyday services on which the community depends may cause large numbers of persons to be compelled to drink milk of doubtful quality. Floods may cripple pasteurizing plants, and milk may be used raw. Many will fail to heed the official cautions about boiling milk. All these factors together render the situation serious when floods, fire, earthquake or other disasters sweep large areas, dispossess many persons from their homes and drive them out of their normal channels of living.

Those of us who sit comfortably by our radios or read our newspapers should do more than merely commiserate with the unfortunate victims of the flood. Any one who desires to make a contribution for the relief of suffering in stricken areas may communicate with the nearest chapter of the Red Cross. Red Cross officials are prepared to advise as to how assistance can be rendered. Red Cross officials have also warned that illegal and illegitimate schemes for supposed disaster relief are likely to be promoted by unscrupulous persons or by those ignorant of the law, who may keep a large part or perhaps all of the proceeds for themselves. It is safest and best to deal directly with the Red Cross or other agencies known to be reputable, such as newspapers, in your community.

One of the most important considerations in disaster relief is promptness. Contributions made promptly in time of disaster are worth infinitely more than those which are delayed.

THE flood menace is not over for this year. When spring comes floods may recur. Disease lurks in flood areas long after the waters subside. The American people can afford to be generous, not only in the immediate emergency but in the long, tedious and costly process of rehabilitation, which will take months or even years.

# Health in the Flood Area

By
PAUL B.
WILLIAMS

*Photos, Universal Newsreel from Soibelman Syndicate*

DOCTORS MADE ROUTINE INSPECTIONS AND SAW THAT EVERY ONE HAD HIS "SHOT."

MORE PEOPLE are alive in Louisville today than possibly could be, had they lacked two modern messengers of mercy, radio and the airplane, when the Ohio River overwhelmed them. Terror stalked their darkened, flooded streets. Danger lurked at any corner. Hunger and disease threatened them.

But they never yielded to despair because, day and night, they could hear the voice of radio, directing rescue and relief work and telling the world of Louisville's plight. Then came word of planes winging in from all directions with doctors, nurses, shipments of serum and other supplies. So Louisville kept its head and met with great fortitude an unprecedented calamity.

To permit that statement to make sense the implications of several basic facts must be considered. Without doing that no one outside the area will ever realize the full sweep of the difficulties encountered or the extraordinary manner in which they were overcome. Among the essentials were these:

1. Some 325,000 persons were involved, representing more than 50,000 homes, according to the estimate of Mayor Neville Miller.

2. About two thirds of Louisville's area was flooded, and until a pontoon bridge 1,700 feet long was built to connect the residential Highlands with the business section which remained above water, there was no getting into or out of the flood areas except by boat.

3. This flood was 10 feet higher than the previous record breaker of 1884. Many had come to believe that water never could reach the levels it actually attained.

4. The new high levels swamped the public utilities. Electricity failed. Part of the gas supply failed. The water company's filter bed was above the flood; but its pumps went under, and that service was sharply curtailed. Sewers were flooded. Telephone service was extremely sketchy.

CONSIDER the people of this great city, without heat, light, food, water or communication (except on an emergency basis) and over wide areas, in grave personal danger. If ever the forces which make panic were joined with smashing impact, it was during those early flood days.

Now to a layman the extraordinary phase of the relief operations, which were started immediately, was the extent to which they combined preventive measures against disease with the immediate saving of life. Under Mayor Miller an emergency relief organization was set

# Louisville Fights Floods with Boats, Food and Serum

up in which Dr. Hugh R. Leavell, health officer, had an important post.

Even before the flood victims were taken from their houses they were being warned against one threat to their safety—fire. It seems incongruous that danger of fire should be an inevitable accompaniment of flood, but it was present in two important ways: First there was the oil floating on water, in quantities which were highly inflammable at many points. Then there was the risk of gas accumulating as it flowed from pilot lights which had been extinguished by water but not turned off. A match or an open flame might start trouble anywhere.

Here, as in many other instances, radio proved invaluable. Station WHAS, by measures which will become an epic in broadcasting, was continuously on the air for five days and nights. Time and time again the people were warned against fire and against drinking unboiled water and were given other practical sanitary precautions. At intervals, officials reported what was being done, so the public was reassured.

The emergency program had three objectives: to save life, prevent disease and provide necessary supplies, including food, clothing and shelter. Technical declaration of martial law enabled Governor A. B. Chandler to send 600 Kentucky troops into the city, and later an equal number of federal troops arrived.

There was never much question, however, as to the real source of authority; it continued to

UNIFORMED POLICEMEN CAME FROM AS FAR AS BOSTON AND PHOENIX AND HELPED TO STABILIZE CONDITIONS.

rest at the City Hall with the military working in cooperation with and not superior to the civilian administration. This insistence on civilian control may help to explain the request Mayor Miller made, when Louisville police were exhausted from continuous duty, for uniformed men from other cities. They came from as far as Boston and Phoenix and helped to stabilize conditions.

AFTER the first rush of rescues, began extension of the preventive measures already in motion. Dr. A. T. McCormack, Kentucky's health officer, was in charge. With him from the Public Health Service were the Assistant Surgeon-General, Dr. Robert Olesen, and Mr.

THIS FLOOD WAS 10 FEET HIGHER THAN THE PREVIOUS RECORD BREAKER OF 1884. MANY HAD COME TO BELIEVE THAT WATER NEVER COULD REACH THE LEVELS WHICH IT ACTUALLY DID ATTAIN.

J. K. Haskins, senior sanitary engineer, from Cincinnati. His familiarity with flood conditions in the Ohio River basin made his advice of great value.

For more than 200 miles upstream the Ohio had been accumulating all the pollution which could be washed out of the cities, towns and farms it had overwhelmed. With drinking water so badly contaminated threat of typhoid was the first major hazard to be faced. Louisville, of course, lacked serum to meet an emergency of this magnitude.

But radio told the world what was needed. American Airlines and Eastern Airlines, which operate from Bowman Field, discarded commercial schedules and began emergency operations. The scheme was to assemble supplies at the nearest accessible fields and then taxi them to Louisville in the big transport planes.

Among the fields used for many such shipments were those at Chicago, Indianapolis and Nashville, although great quantities of material were sent from New York and Philadelphia as well as from Boston. Outbound, the planes carried refugees. O. T. Ridley of American Airlines said this service cost his company $10,000 a day for a week, which is indicative of the way people act in an emergency.

Meanwhile doctors and nurses were arriving from all points. Emergency hospitals had been established in schools, churches and other available quarters. The army brought in a field hospital. At one time the number of outside doctors was estimated at 300. The first emergency current brought into Louisville was delivered to hospitals by the Kentucky Utilities Company.

More than 110 relief stations for distribution of food or medical treatment were established. Privies, hastily made of wood, were set up over sewer manholes. People were being advised repeatedly by radio to get their inoculations promptly. Doctors were making routine inspections of the few places where persons assembled downtown as, for example, a telegraph office, and seeing that every one had his "shot." Treatment of water with iodine was explained, and drug stores were allowed to open for the sale of drugs, with two soldiers on guard at the door.

Shipments of serums, food and other supplies were arriving at an accelerating rate by midweek, so there was less reason for acute suffering, except in the cases of those who were undiscovered in isolated homes, and they were probably relatively few, or those who had refused to be evacuated, of whom there were many. By January 30, doctors and nurses who had been on emergency duty were leaving, to be replaced by others who came in as needed.

Every such disaster experiences a "rumor stage," and Louisville was no exception. Notwithstanding that some 54,000 had been evacuated by boats by January 28, many remained. The public had caught its breath, and fantastic yarns began to circulate.

The number of deaths was discussed everywhere. In street talk it rose to between 500 and 600; and outside, as newspaper men know, their offices heard such incredible figures as 15,000, this being considered possible on the theory that censorship prevailed.

Tom Wallace, editor of the *Courier Journal*, said the most careful check by his staff showed deaths of 190 for the period from January 24 to 29, which would be about normal. Two of these were called drownings. Mayor Miller stuck to this figure after consultation with Dr. Leavell. The hospital population at that time was reported at 1,950, which was about double the normal figure.

There was no confirmation for tales of bodies being burned in the city's disposal plant or of wholesale burials in trenches. It would be little short of miraculous if receding water did not show others who had drowned. Some persons must have been trapped, and small boats must have capsized in the swirling currents. What the eventual number of deaths from disease may be, cannot be told now. Certainly everything that preventive medicine could do to curtail it has been done.

River men who were active in the rescue work said two natural factors also helped keep down the death rate. A full moon prevailed during the first nights of terror and, even in fog or rain, shed enough light to help their labors of mercy.

The other favorable influence was that the weather remained reasonably warm, with temperatures around 40. It is bad enough to be wet; it is worse to be wet and cold. For victims and rescuers alike, the freakish season which brought their troubles on them also yielded them this slight measure of assistance.

Considering the somewhat contradictory aspects of civilian authority and martial law there was comparatively little confusion. The clashes that did occur were between lesser individuals who could not withstand the stress of their extraordinary situation. The central committee had to be revamped to meet changing conditions, and on the whole it served with marked skill and devotion.

If it can be done, a manual of standard practice should be worked out for the information of officials and others who may encounter such emergencies. One of its first acts should be to define a form of credentials which would be recognized by any authority. That may seem like a minor point, but it is vexatious to keep up with changing passes when there is work to do. Careful examination of Louisville's experience now might furnish valuable information for those who must meet similar calamities in the future.

# DIPHTHERIA: . . . Unnecessary Death

By
R. A. SLOAN

"O.K., JOHN. LET'S ROLL. THIS IS PROBABLY ANOTHER UNNECESSARY DEATH. FOUR YEARS OLD AND ALREADY WELL ON HIS WAY TO THE HAPPY HUNTING GROUND."

THE telephone jangled insistently. It finally aroused the room's sleeping occupant.

"Hello. Dr. Smith speaking."

"You have an ambulance trip, Doctor."

"At this hour! What time is it?"

"Four a. m., sir."

"What kind of a case is it?"

"Four year old child with laryngeal diphtheria."

"Ask the driver to be sure to have a set of tubes on the wagon. We may need them if the child chokes up and can't breathe."

Within a short time the doctor had hurriedly dressed and was waiting at the entrance.

"The ambulance will be here shortly, Doctor. . . . Here he comes now."

"O.K., John, let's roll. This is probably another unnecessary death. Four years old and already well on his way to the Happy Hunting Ground. All because his parents failed to provide a certain protection which any doctor can give. One would think that people had learned by now to respect and fear diphtheria; learned that the old adage, 'an ounce of prevention is worth a pound of cure,' is true. Five cases this winter. Only five, but every one of them unnecessary. John, I suppose you can remember when there were five and six times as many

cases and deaths as we hear about nowadays, however."

"I sure can, Doc, and that's why I wonder you get so het up about it."

"I AM afraid your reasoning runs parallel with that of the majority of people. They have heard about the favorable results of antitoxin, the decreased number of deaths. As a result they have been lulled into a false sense of security, and so they delay immunization of their children. They feel that because of the decreased number of deaths and cases there is less chance of their children contracting diphtheria. That is the falsity. The chances of contracting diphtheria are scarcely less today than they were before the modern scientific treatment and immunization were developed. It is lying in wait constantly to fasten itself on some innocent, unprotected infant or child and less often an adult. Great strides have been made in the conquest of diphtheria. Our weapons have proved their worth, but without use they are valueless.

"How about your youngsters, John? Have they been immunized?"

"No, I'm afraid they haven't been—yet."

"'Yet' gives me the answer. You have been procrastinating, putting it off, passing the buck on your own better judgment. What's to prevent you from finding yourself in the same shoes as the man we are hurrying to help? Somebody with a slight, unsuspected cold or one of the many diphtheria carriers stoops over to admire your baby—and you find yourself praying that the ambulance will come in time. Procrastination and a false sense of security are the two biggest reasons for a few thousand unnecessary deaths each winter."

"Here we are, Doc. Rather hard finding numbers this early in the morning."

"Let's take a look. We may not need the tubes, but bring the kit along. Boy, three narrow flights! Judging by the sound we will not need any one to direct us to the apartment."

The grief stricken wails of the mother were plainly audible outside the door. The frantic father was beside himself, trying to comfort his family and still hold himself together. Probably five or six others were huddled about in corners, attempting to disguise their grief over the infant's distress.

"Hello, sir, do you have a patient here?"

"Oh, Doctor! Not now, you are too late. He's gone! Choked to death. It was terrible."

"May I see him, please?"

"This way, Doctor."

Following close on the heels of the grief stricken parent we walk through small crowded rooms to a large single bed, normally holding three or four, but now set aside for the corpse of a small, pale, completely silent, waxen faced infant of 4 years. There is no doubt about his being dead. Complete silence has replaced his noisy attempts at breathing, breathing which could probably have been heard across the hall. His chest is immobile. No longer is the space between his ribs and the upper portion of the abdomen sucked in with every breath. Complete, oppressive silence within the bed, while outside in the kitchen, now completely overcrowded with relatives, sobbing is heard. Tears are shed and hope stifled cries set free. All this is an aftermath of an unnecessary death. Tears and grief, where calmness and health should be.

"How many children have you, sir?"

He replied that he had six, and all were young. None of them had received protection against diphtheria until this catastrophe occurred. Six more are now protected for a short while. The price—one unnecessary death. This father has probably learned his lesson, but not so thousands of others in homes throughout the country—not until the same unnecessary scene has been repeated again and again. Another child was snuffed out because of the parents' failure to throw him a certain life preserving measure in time.

WHAT is to happen to the other six children? They have been watched constantly for incipient signs of diphtheria. They have been given injections of antitoxin, which is a rapid method of immunizing. Haste in protecting them was imperative, but still this method is only temporary. For three or four weeks at least they are protected, but after that they again go back to the list of potential unnecessary deaths. Have the parents learned the need of completely protecting these children? We hope so. If they have not, however, the same scene may repeat itself.

What can be done to prevent such a repetition? The children can be actively immunized. During the sickness of their dead brother they were passively or temporarily immunized with antitoxin. Now they must be reimmunized with toxin-antitoxin, or better, with toxoid, a material which will give them protection sufficient to tide them over the dangerous period of infancy and early childhood.

MANY of the victims of unnecessary death never arrive at the hospital; still others do arrive, but nevertheless in many cases with the same useless termination.

"I see we have another patient with diphtheria in the contagious ward," one doctor will remark.

"Right, and I am afraid she's going out," another answers. "She came too late for antitoxin. The membrane will choke the youngster before the antitoxin gets a chance to work. We are going to open the trachea and put a tube in as soon as we get permission."

"How old is the child?"

"Three! The strange part of it is she had antitoxin last year because of contact with a neighborhood case. The temporary immunity should have been followed up and converted into a more permanent immunity."

"Here comes the mother now. I have to tell her the only chance for the child is to do a tracheotomy."

"Doctor, how is Betty?"

"A bit worse, I am afraid."

"Is she going to die?"

"Unless we get a tube down below her rapidly closing larynx, I am afraid so."

"Doctor, she *can't* die, she just *can't!*

The desire always comes up at this point to ask why she wasn't taken back to the doctor following the close call of last year; or better, why did they delay immunizing the child at 6 months of age. But this is not the time for such idle talk. It is too late. Now every effort must be made to remedy procrastination.

Such unnecessary scenes and conversations are continually repeated in any large or medium sized hospital in the country. The answer is simple. Great strides have been made with the weapons at hand, but until they are put to a full use unnecessary deaths will continue.

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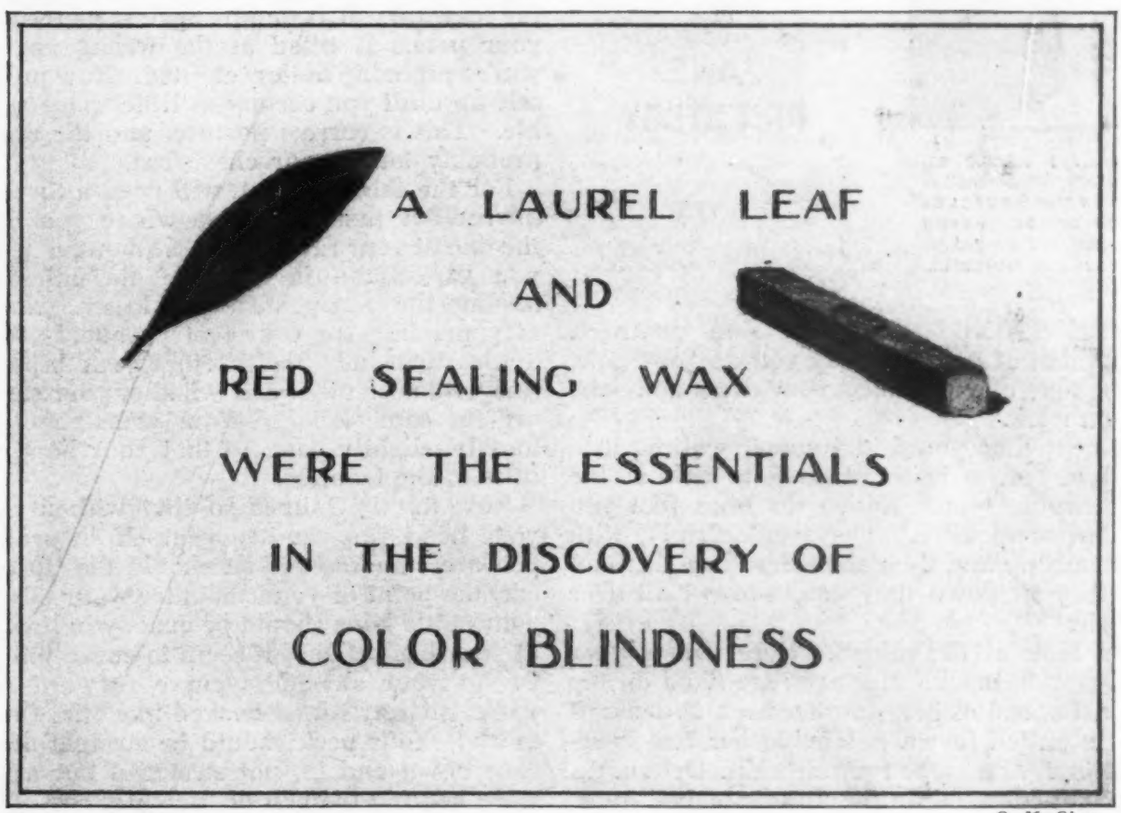
# CURIOUS STORIES ABOUT HEALTH

## The Nineteenth of a Series by MELVIN PRICE ISAMINGER

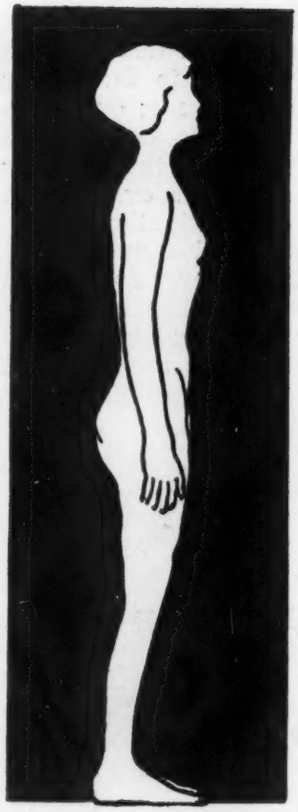



*O. M. Olsen*

JOHN DALTON (1766-1844), an English chemist, had one physical defect, color blindness, which he himself discovered. In 1794 he read a paper to the Philosophical Society of Manchester, England, which announced the discovery of this phenomenon.

The failure of Dalton to distinguish between red sealing wax and a laurel leaf is usually recounted as the chief incident associated with the "discovery of color blindness." But according to another story he presented his mother with a pair of cherry-red silk stockings, while in his own eyes the gift was entirely suited to his somber Quaker taste.

ALTHOUGH Dalton's confusion of red with green extended his fame, it embarrassed him on many occasions. For example, when he received his honorary doctor's degree from Oxford in 1832, while he was being robed with the scarlet, Dalton is said to have remarked, "What a beautiful robe, just like the green of nature."



YOU AS YOU SHOULD BE. YOU DON'T TIRE EASILY, SINCE YOUR MUSCLES ARE NO LONGER BEING STRETCHED OUT OF SHAPE, AND YOU ARE GRACEFUL.

# IT'S THE WAY YOU

## Correcting Faulty Posture Takes a Certain Amount of Time, but Luckily There's Nothing Hard About It

By
JANE
PRIESTLEY

LITTLE THINGS can determine another's opinion of you: the way you do your hair, the tone of your voice, your dress and—the way you walk.

The next time you find yourself waiting in a hotel lobby or a railroad station, look at the people around you. Notice the ones that you like, that seem alive. They walk firmly, with their heads up and their shoulders straight; and when they sit down they don't sprawl all over the chair.

Then look at the others. Here comes poor Miss Question-mark. Her eyes are fixed on the floor just ahead of her, and her neck and shoulders are pulled forward, leaving her feet dragging behind. Across the room sits Miss Debutante, her weight centered on the middle of her spine, her chin on her collar bone. When she walks she drifts along like a weeping willow. Clickety-click, Mrs. Fuss-and-bustle trots past you, the direct antithesis of Miss Debutante. Her shoulders are thrown back too far, and her spine curves in at the waist, giving her hips the appearance of a tea tray.

Now look at yourself. Do you walk and stand like some one you'd like to know? Are you living up to the smart new dress you plan to buy? Here are three simple tests by which to find out:

First, to learn whether you lean toward the Fuss-and-bustle type, try the back-to-the-wall test. Stand against a wall with your heels three or four inches away from it, and with the back of your head, your shoulders and your hips touching it. If your back is properly shaped there will be just room enough for some one to put a hand between the small of your back and the wall. If your back is too flat, as is Miss Debutante's, it will go against the wall almost all the way.

The second test will tell you where and whether you're out of line. Stand as straight as you can in a doorway, with your back against the corner of the jamb, and pull the door toward you until it touches you. If it touches your chin or nose first, your head and neck are too far forward. If it bumps against your stomach, your pelvis is tilted at the wrong angle, and you're probably hollow chested. Now pull yourself up until you occupy as little space as possible. This is correct posture, and the door will probably touch your chest first.

For the third test you will need a three-panel mirror. If there isn't one where you live, try the one at your favorite dress shop the next time you go. Stand in front of the mirror, and assume the best posture you know. Now look at yourself. Are your feet parallel? Do your ankles turn in? See whether your hips are in line with each other and whether your shoulders are the same height. Your arms should hang loosely, slightly bent, so that your hands are a little to the front.

Now fix the mirror so that without moving your head you can see yourself in profile. If you are standing as you should the tip of your ear, the point of your shoulder, your elbow and your ankle bone should be exactly in line. Look at your back. Does it seem to curve too much? Or do your shoulders curve forward so that you're slightly camel-backed like Miss Question-mark? Your neck should be straight and your chin down and in, not stretched out as if you were hearing the call of the wild.

If you have been honest with yourself in these tests, nine chances out of ten you have found at least one point that will bear improvement. Correcting faulty posture takes a certain amount of time, but luckily there's nothing hard about it.

The first thing you will want to know is how to assume correct posture. You should stand by the following six rules:

Keep your neck straight, so that it feels as if you were almost stretching the back of it.

Feel your chest come up and out between your shoulders.

# WALK

Keep your shoulders down and back, but easy. Keep your abdomen in.

Keep your knees straight, but don't lock them back.

Keep your feet pointed straight ahead with your weight over the middle of your foot, not on your heels.

When you walk, hold yourself just as when you stand, and use your whole foot for each step. Control your hips so that you won't wobble, and walk on one line rather than on two, to keep from swaggering. Let your arms swing freely. Try to transfer your weight smoothly from one foot to the other by pushing off forward from your big toe on each step.

When you sit, keep your head and chest up, your chin and stomach in. The hips, knees and ankles should be almost at right angles to one another.

Learning to practice good posture is half the battle. The other half is won by doing simple exercises for a few minutes every day. What did you find wrong with yourself in the tests?

If you were round-shouldered, here are two answers to the question: First, stand up as straight as you can, clasp your hands behind your back, and roll your shoulders back as far as you can. Then relax, and do it over again. Sitting down, clasp your hands on the back of your head, with your elbows back as far as they will go. Stretch upward, then extend your arms above your head, keeping them back. Relax, and repeat.

If your left shoulder is higher than the other, try this: Stand with your right hand on the base of your neck, your elbow back. Put your left hand on your hip, and bend your body to the left, pushing your right elbow up and back. Return to position, and try it again, but don't twist or let your hips swing to the right, because you won't use the right muscles if you do. If it's your right shoulder that's higher, just reverse the process.

Your back curves in too far? Then try standing as you did for the back-to-the-wall test. Now pull your back against the wall by contracting the muscles in your abdomen and pelvis. Try walking away from the wall while holding this position.

Another one for your back is this: Lie on your back on the floor with your hands at your sides. Flatten your back as you did against the wall. Bend one knee up over your chest, straighten your leg upward, and lower it as slowly as you can, keeping your back flat and your knees straight. Then do it with the other leg. This is a good exercise for keeping the stomach flat, too, because it strengthens the abdominal muscles. Another exercise with similar effect is done lying in the same position. Raise and lower both legs at once without bending your knees. Do so as slowly as you can.

THIS IS MISS DEBUTANTE. HER BACK IS ROUNDED; HER STOMACH STICKS OUT; HER CHIN PUSHES FORWARD; SHE DRIFTS ABOUT LIKE A WEEPING WILLOW.

MRS. FUSS-AND-BUSTLE IS THE ANTITHESIS OF MISS DEBUTANTE. HER BACK AND PELVIS ARE TILTED TOO FAR IN THE OTHER DIRECTION.

If your back is too flat, do this exercise instead: Lie prone on a table with the edge under your hips so that your legs hang down. Put your hands under your chin, keeping your neck straight and your elbows out to the sides. Now, by using only your back muscles, raise your legs and head simultaneously as high as you can, then relax. You won't get very far with this at first, but in time you'll be able to feel like a chair rocker.

Picking up marbles with your toes and walking on a straight line with your toes curled under as if holding marbles are two of the best exercises for keeping your arches high and your ankles straight.

Now suppose that you've been exercising faithfully, and you find your carriage positively regal. Keep it that way. You feel better, and you tire less easily, since your muscles are no longer being strained out of shape. You look better. You are graceful, and your clothes fit you twice as well. The way you walk, sit and stand is a little thing—unless you are Miss Question-mark or Miss Debutante or Mrs. Fuss-and-bustle.

# Be Kind to What Animals?

By VICTOR HEINEN

**EDITOR'S NOTE**

**The following article by the Rev. Victor Heinen, O.S.B., B.S., is reprinted in HYGEIA in order that our readers may have clearly presented some of the reasons for animal experimentation as they apply to the philosophy of the Roman Catholic faith. The author of this article is a regularly ordained Catholic priest and teacher, and the article first appeared in the "Morning Star," a periodical published by the students of Conception College, Conception, Missouri.**

"BE KIND TO ANIMALS!" That phrase is familiar as the slogan of a number of societies, whose aim is to prevent cruelty of one form or another to the dumb brute. This same phrase might equally serve as the motto of a group of prominent men whose activities some of these very societies are trying to condemn. These benefactors of humanity are the research scientists, or as they are referred to—contemptuously as a rule—the vivisectionists.

Most assuredly the vivisectionists' slogan could and really should be "Be Kind to Animals." That phrase expresses exactly what the physician in training is trying his best to practice. He is showing kindness to man. Man is an animal, the noblest—for he is the rational animal or, less optimistically, the animal capable of reasoning. Man stands at the peak of the animal world. All the animals approach man in something, yet none is equal to him. For man alone possesses that power which is the dominating factor of the world, the power of reasoned and purposeful activity. This power makes man the natural master of the entire animal and lower world. It is precisely because of that power and characteristic that man alone is subject to law and has rights and duties.

## ETHICS OF VIVISECTION

That man alone has rights and duties will need discussion and development. It is from the development of this point that the ethical aspect of animal experimentation or vivisection can be made clear. Duties and rights are correlatives. One cannot exist without the corresponding existence of the other. In many cases, one may be more apparent than the other, but the partner is certainly there.

In a murder, both right and duty are violated. It is a violation of the victim's right to life. We look upon all other crimes in the same light. We recognize as the first norm of civilized society's conduct the "Golden Rule." The norm is the basis of our penal codes, our courts of justice, our rights of redress for wrongs suffered. We recognize the universal law of rights and duties of man to himself and to his fellow man.

On the other side, do animals recognize such relationship? Do animals give us any signs of regard for the well being of individuals of their own species or for other species—higher or lower? True, they preserve the species itself, and to that end care for their young. But they have no physicians for their sick individuals, no permanent care for their cripples and no provision for their old and feeble members.

Does the tom-cat "think" it unethical to murder as he often tries to do, his new-born family? Or is there much fuss made about the Golden Rule in a herd of deer or buffalo when in the mating season, the males "fight it out," often to death? The law found to predominate in all nature below civilized man is simply "might is right," or the "stronger dominates the weaker," and there is no evidence that there is such a thing as remorse after it is all over with. Animals have no rights and duties, strictly speaking, because they are incapable of being true subjects of law. Law can only arise from and only address itself to, reason, which animals lack. This is not true of man's relations to his fellow men, simply because man as man enjoys individual rights which must be respected by

other men. These rights are based upon the "ego" or personality in man which makes him a "law to himself." The above ideas of human rights and duties are based upon the fundamental and essential differences between "rational" and "irrational" or human and animal, psychology.

### THE DOMAIN OF INSTINCT

In the realm of animal psychology, the highest form of "knowing" is the outcome of instinct. Instinct can be defined as "the inherited and essentially unchangeable basis of spontaneous activity, fundamentally and essentially a part of the animal nature." The strongest and the most universal are the two: Preservation of species and preservation of self. It is practically impossible to know which of the two is the stronger. It is the instinct for the preservation of the species that makes a mother animal fight for her offspring—even to death. It is the instinct for self-preservation that makes any animal "choose" to fight rather than submit to capture, or to escape at any cost if caught.

The highest form of self-concern we can attribute to an animal can be called "cognizance." The animal recognizes either instinctively or from past experience, things which will give it pleasure or which are injurious to it. But this recognition only concerns itself with concrete particulars. This is what is sometimes erroneously called consciousness. But there is so far absolutely no evidence that what the term consciousness implies is present in the animal psyche. All these activities are sense activities —i. e., they are controlled absolutely and solely by the senses and the animal mechanism brain. They are all concerned with the concrete and the particular in all their details. Any change in details causes a change or hesitancy in the resulting acts.

What are the conclusions? All animal psychology is completely dominated by past experience, together with the innate power of recognizing what is good or harmful to the species. It is solely carried on through the nervous reflex and instincts which are properly a part of the animal physical nature. Can these conclusions give us a basis for rights and duties? No! Rights and duties essentially imply a capability of voluntary, i. e., free or arbitrary choice. There is no choice when activity is controlled by stereotyped instincts, and where predetermined results depend entirely upon the nature of the stimuli received. The result and logical conclusion is that no animal can have rights or duties and, as stated before, the two are inseparable. It is a recognized fact in all society that animals are never made subject to legislation on their own responsibility for they are incapable of it.

When examining the psychology of man we find a different state of affairs. Very true, all that has been said about the animal psyche will also hold good for man. Man has the entire complex system that is found in the brute, even in a better developed form in most instances. It is in the child especially that we find expression of the animal instincts. In the adult man, however, there is another factor that covers up the workings of the instincts to a great extent, in fact so much so that often we cannot recognize the activities as coming from that factor at all.

### THE DOMAIN OF LAW

Above the factors, recognized as animal instincts, therefore, we find a factor in the human mind that controls the instincts. This factor establishes the individual personality of the human person, it is the "ego" characterized by the operations of arbitrary choice and by ideas in the abstract. It is the "spark" that perhaps contrastimulates the instinctive operations, or helps them, or guides them into operation. This faculty operates through and by means of the nervous system, yet it is not dominated by that system. It is this power of weighing circumstances in the abstract, and formulating judgments, which is the basis of rational activity. This power of abstraction brings with it a faculty of introspection and self-consciousness, by which I know "myself" and the relations of myself to other beings. By it I can become subject to law; it is through my being subject to that eternal law which reason discerns in the universe that I can have rights and the correlative duties.

Man has moreover the recognized right to own animals as chattel. This right has never been questioned, it is rooted in all society, from the lowest savage to the most enlightened. As a consequence of ownership the owner, man, has a right to demand the services of his animal. He demands work from the horse, milk from cattle, the eggs and meat of poultry, as services arising from the right of ownership. If these services are justifiable, then any other rational service that is for the good of man is also within the rights of man.

### HIERARCHY OF LAW AND INSTINCT

Vivisection or animal research is undeniably a service to man. As a service, man can

ethically and morally demand it from the animal world in spite of the fact that animal lives are necessarily lost or destroyed as a result of exacting that service. This right is founded on the position in nature, by which man has domination over animals lower than himself. Man stands at the peak of nature. Man is, therefore, the highest, and has both the natural dominion and ethical rights over the animal kingdom—so long as he does not infringe upon the rights of another man or act in violation of his own reason.

We have said that rights carry with them duties. The higher animals prey upon the lower by instinct, but man must use the life of all animals below him according to reason. The duty of man to the animal kingdom then is precisely to avoid destruction of animals when this destruction is of no service to himself. For the same reason he must avoid unnecessary cruelty —or better, just plain cruelty. He must observe moderation, that is a due proportion between the importance of the end sought and the stringency of means used. If there be campaigners against vivisection who seek only the observance of proper measure and manner they have our respect. But most antivivisectionists consider themselves pikers if they do not oppose the fact itself of vivisection under any circumstances. Pain inflicted unavoidably upon animal (or man) is not cruelty. Therefore pain unavoidably inflicted upon an animal in service to man is merely a necessary consequence of the service that animal is called upon to render to man.

### LOGIC VS. SENTIMENT

Vivisection as practiced by those who are spending their lives in the service of humanity is not unethical, i. e., is not against right reason —or immoral, i. e., contrary to the laws of Providence and of nature. On the contrary, it is within the right order of nature for man to exact useful service to man, and therefore, ethical and moral.

It takes cold logic to see into these facts but facts, nevertheless, they are. As long as a man acts as a rational animal, uses those faculties of intelligence, which presuppose purpose, and the power of reasonable choice, which make him a man, he is acting ethically. When he acts as an animal (merely), that is allows himself to be guided by sentiment wrongly placed, by his purely animal emotions or the base appetites or passions, his actions cannot be justified.

The conclusion must be that opposition to medical research because of misplaced sentiment and irrational sympathy is not facing the facts of the case and acting upon them in a rational way. Reason tells us that the suffering of humanity, especially of our children, is the correct sphere for rational sympathy, and that for their benefit we must allow vivisection to go on, barring cruelty in the sense we have explained above.

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## CATCH THE WIND

**By Seymour Gordden Link**

Breathe deep this quick departing wind
  Or there will come a day
When all about you trees are thinned
  And the savors blown away.

Then you will gasp and vainly try
  To fill your tired girth.
But over you the darkening sky
  Will press you to the earth.

Once you have let the spring of life
  Escape your lazy fingers,
Only the chilling silver knife
  Of desperate winter lingers.

Catch you the wind and fill each lung,
  And let your heels pound loudly
The yielding earth. Then ever young
  You will stride life long and proudly

# "Just Another Accident"

## A MOTHER SPEAKS

A RUSH OF little feet across the porch—a house-rocking slam of the door! It was noontime and Peter, aged 5½, had come home from school. "Mother, where are you?" he called. As it happened I was down in the basement finishing up some laundry work, but I came up shortly, and we began to get lunch. "Mother, do you know what? Today Miss Livingston took us all down to the creek and showed us the birds in the woods. We saw some cardinals, and I drew a picture of one. Do you want to see it? Here's a picture of a grackle too. Do you see how it's all purple here? And we saw a lot of flowers. Some day I'll draw them too. I'll draw some daisies. I know just how I'll do it; just a circle and then many loops around it," he said as he motioned in the air with his hand to show how he would draw them.

And so we spent a happy lunch hour, Peter telling me all that had taken place at school that morning, how some of the other boys had built a train out of blocks they had at school, and how he had fixed one end of the track. Well do I remember when he first started to go to the little nursery school that preceded the present school, and how he enjoyed the games and the songs, particularly the song about the pussy willows. How pleased he was when he could pick out the tunes for himself on the piano. He enjoyed everything so thoroughly, and life meant so much to him—and to us.

We went shopping that afternoon at the big suburban department store. That was always so much fun. After that to the five-and-ten cent store, for Peter had some money to spend. He thought perhaps he would buy another toy automobile. He always wanted more "cars." In fact, the first nickel he spent alone was invested in a "car." But he also wanted more paper for drawing, so we compromised on the paper and some lollypops. It was such a beautiful day, one of the warm sunny days of early spring which is so much appreciated after an especially cold winter! So, when he asked, I let him stay out to play a little while after we arrived home again. He seemed so happy with it all.

BUT that was yesterday—or was it last week or last month? For each day seems an eternity. Today there is nothing but a terrible emptiness. The birds still sing, but I scarcely hear them. The flowers to which we looked forward with such anticipation are with us, but they go unnoticed. All meaning seems to have gone out of life itself. There is nothing left but a yearning void within, a tearing apart as if my heart were gone—and it will *never* cease. For Peter is gone! *Gone!*

I see the drawings he made that last day at school, of which he was so proud. But Peter is gone! No clatter of sturdy shoes on the hall stairs; no little voice singing in the early morning or calling, "Is it time to get up?" I see his blocks which were used in building so many different objects. Just the other day he came to me after spending an hour or two with them and told me he had built all the designs on his chart. It is so terrible to realize that Peter is gone! I fondle some of his clothes that he had worn so shortly before, just to have something close to me that was close to him. But Peter is gone! I start up at night expecting to hear him call; and then I awaken to the awful truth, which overwhelms me anew, that *Peter is gone!*

AS FOR his daddy, I see him now, just sitting and staring. He doesn't speak of it, but I know he is thinking of his little boy, his pal (for they shared everything), of his son and successor. I remember how when Peter was just a little shaver he told a neighbor that when he grew up he would be an engineer "just like his daddy"—but there'll be no engineer like daddy.

Why? As he started out to play, just stepping off the sidewalk to cross the street and join his playmates as I stood on the porch, a speeding car, a heedless driver at the wheel, out of control because of excessive speed, came dashing down and crashed into Peter, tossing him many yards down the street. Just a momentary mental lapse, perhaps, on the part of the driver; a slight misjudgment of distance and speed, but what a consequence! We picked Peter up, battered and broken. I live again those dreadful minutes at the hospital, minutes that seemed like a year, hoping against hope. When they told me he was dead I couldn't believe it was true that our dear little boy, our life, our everything, had been taken from us so ruthlessly.

We laid him away, tenderly, with a simple service in keeping with his simple life.

What makes this tragedy the more terrible is that the same thing happens over and over and over again. Even if described in greater detail it could not be distinguished from the many similar occurrences that take place throughout the country every week. And each time it is noted as just another accident. Just another

PETER STEPPED OFF THE SIDEWALK TO CROSS THE STREET AND JOIN HIS PLAYMATES. AS I STOOD ON THE PORCH, A SPEEDING CAR, A HEEDLESS DRIVER AT THE WHEEL, OUT OF CONTROL BECAUSE OF EXCESSIVE SPEED, CAME DASHING DOWN THE ROAD.

careless driver. Just another accident! How complacently we accept it and let it go at that.

Such needless loss of life simply cannot continue. So frequently are the strong and the fit, the very ones to whom we look to carry on, sacrificed on the altar of the great god Speed. More than 36,000 victims in 1935, most of them needlessly dead. In my own extreme sense of loss I am prompted to make a plea for a saner approach to the entire question of driving. An entirely different attitude toward driving and the driver is needed, for we look on driving as too much of a commonplace. Take, for example, the youthful driver. The youngster

of 16 grows tired of the bicycle, and with no more ado, and possibly less, than when he learned to ride that vehicle, we find him driving around in an automobile with an engine so powerful that in careless hands it can quickly become an instrument of death.

According to the records, there were 790 drivers under 18 years of age involved in fatal accidents in the year 1935. This is quite apart from the thousands of victims left maimed and crippled. In many instances, of course, it is the youthful driver himself, rather than an innocent victim, who is killed; but it is small comfort to bereaved parents to know that the victim was himself to blame.

We have perhaps been somewhat too liberal in granting a privilege for something that requires more mature judgment. Few of us, for example, are prepared to trust minors with any considerable portion of our personal fortunes. Driving a vehicle as powerful as the modern automobile would seem to be a privilege of at least equal responsibility, for it is gambling with precious lives, both their own and others'. Aside from the desirability of the young driver gaining experience, which can be accomplished in some other place than the public highway, there would appear to be little purpose served.

In referring to the youthful driver I do not mean to imply that he is the sole offender, for he is not. I make the reference as illustrative of our attitude toward driving; that is, regarding it as something of no particular responsibility. If we are to make any progress in highway safety, we can no longer permit any and every one who may so wish to take a car on the road. The privilege of driving can no longer be something to be accorded any child and consequently held lightly. We need to attach some degree of responsibility to the privilege, through better training and more rigid qualification requirements. In this way we may hope to accomplish results similar to those in other fields: on the railroads, for example, where a passenger death is rare. But in this instance, definite standards have been established over a long period of years. Who would think of riding on a train if he knew that at the throttle was a 16 year old or an 18 year old or even a 21 year old? It has only been through careful training methods that the present admirable record has been attained.

Possibly we cannot expect the same safety with the automobile as with the railroad, for we need to deal with too many personalities, individuals who may feel that their personal liberties will be unduly curtailed. But we should certainly be prepared to curtail the liberties of the reckless minority of drivers responsible for a disproportionate share of accidents. And yet some states have no restriction whatever on the issuance of drivers' licenses, some not even a minimum age limit! Even in the states that nominally have examinations of drivers, they are frequently examinations only in name. I have in mind an instance of a 17 year old youth being granted a license after only one and a half hours' training, presumably to get his experience afterward on the public highway.

Eventually we shall have definite control established over all drivers of automobiles, as we have for airplane pilots. We may establish schools for training with rigid requirements for each grade of license—private, commercial and transport. If such a program is not instituted under state supervision, then perhaps it will be under federal control. But I stand aghast at the number of lives that will be sacrificed until there is sufficient realization of the seriousness of the situation so that something will be done.

I wish other parents would take a mother's word for it that there is nothing so terrible as the tragedy of losing a child *so needlessly*. Looking back, it is just as though some fiend had caught our little fellow and cut him down in some diabolic manner. It wasn't a fiend, of course; it was "just an accident," but it has left behind a thousand heartaches.

I never thought that anything could be so pressing until this tragedy came into our lives. An overpowering sense of calamity is ever with us like an ominous shadowy companion. Wherever we go, whatever we do, at home or away, always with us is this specter of tragedy. At the dinner table it occupies the empty chair; in the automobile, no matter how many are of the party, there is always this extra passenger. Walking, he keeps pace with us, perhaps a step or two in the rear; or, reading at home, he is glancing over our shoulder. Always this tragedy. Tragedy! This ever present crushing feeling of *tragedy!*

Thus has calamity come into our lives, Peter's daddy's and mine, while we have stood idly by as the automobile took its overmounting toll—deaths, however, of individuals who meant nothing to us personally. We were safe! We saw the news items in the paper every day. Nearly always some heedless driver was involved. But it could never happen to us. Our child was too careful; he was too well protected! Even now I can almost convince myself that it could not possibly have happened to Peter, were it not for this terrible loneliness.

But with it all, I am only asking that other parents realize that their child may be the next, and, in that realization, that something be done to remedy matters. It will be some comfort to me if there can be brought about a more rational and determined attitude toward automobile driving, so that some other mother's little boy will have a better chance than mine and that there will not be "just another accident." Surely something can be done.

# SYPHILIS

By MARIE PICHEL WARNER
and BENJAMIN W. WARNER

THERE EXISTS today an enlightened, changing public and medical opinion regarding sex education. Sex education must include the knowledge of diseases which may result from promiscuous sexual relations. These diseases are commonly called venereal or social diseases. The word "venereal" indicates the association with Venus, the goddess of love. The word "social" is used because these diseases have profound social significance.

Dr. Thomas Parran, Surgeon-General of the United States Public Health Service, has started a campaign to "stamp out syphilis." In keeping with this policy of syphilis control as the next big attainment of the Public Health Service, the President of the United States has approved the provision of funds derived from the Social Security Act so that community, city, state and federal health authorities can be assured financial assistance in the drive to stamp out syphilis.

The control of syphilis and gonorrhea, the two most important social diseases, can be brought about by earlier and better education concerning their nature, their prevention, earlier diagnosis and facilities for continued, adequate treatment. There are definite means of preventing typhoid, and the public is so advised. There are likewise methods for preventing and treating the devastating venereal diseases, and there is no good reason why the information should be withheld and people kept in ignorance when the results are so serious. The big difficulty with the prevention and treatment of the venereal diseases in the past has been that they were associated with sin.

EVERY young man and woman before the age of adolescence should be familiar with the cause and effects of both gonorrhea and syphilis. We are educating our boys and girls to build up strong bodies to avoid tuberculosis. We must also warn them that a hidden army of bacteria can attack other parts of their bodies with equally devastating effects.

Statistics show that some 600,000 newly infected persons receive treatment for syphilis each year in the United States. The venereal diseases are so prevalent that while you may not be familiar or concerned with them, you and members of your family may often be exposed through nonsexual sources.

Syphilis is not a new disease. Whether it existed in antiquity is a debatable question. It has been shown by the condition of bones unearthed from mounds and burial places that primitive races on the American continent suffered with the disease. After its introduction into Europe it was spoken of as the "plague" because a severe epidemic spread over the continent, and one country blamed another for introducing the infection.

THE term "syphilis" was given to the infection by a monk who wrote a poem about a shepherd who had the disease. The shepherd's name was Syphilis. For 400 years after the introduction of syphilis into Europe the actual cause was unknown. It was not until 1903 that two scientists, Metchnikoff, a Russian, and Roux, a Frenchman, proved that chimpanzees could be infected with syphilis. Two years later, in 1905, two German scientists, Schaudinn and Hoffman, discovered the germ that causes this disease and called it "Spirochaeta pallida." These discoveries were extremely important because Metchnikoff showed that inoculation with the germs of syphilis could be avoided by rubbing mercury salve into the skin. This was the only treatment known until 1912, when Ehrlich, a German scientist, startled the world with the valuable discovery that a certain compound of arsenic could, when injected into the blood of an individual, kill the spirochete and cure the patient. Ehrlich injected 605 different chemical compounds into his inoculated laboratory animals with poor results, but the next compound proved to be the successful one. The compound is known as arsphenamine, or 606. The Wassermann blood test for the diagnosis of syphilis was introduced in 1907.

The germ of syphilis is an organism shaped like a corkscrew and called Spirochaeta pallida. The germs may be found in the original sore, or chancre, which usually appears at the site of contact about two weeks after exposure. This condition is spoken of as the primary stage of syphilis. A Wassermann blood test is not always positive at this stage, but physicians can look for the germs by examination of scrapings from the chancre by means of a specialized microscopic examination called a dark-field examination. If a diagnosis is made at this time, approximately 100 per cent cure can be assured. However, treatment must begin at once and be continuous as prescribed for a period of two years.

Following an infection, Wassermann tests at frequent intervals are essential in order to follow the course of the disease. Local treatment alone will not cure or prevent blood infection. Without any treatment the sore in

the first stage disappears, and the patient may think he is cured. This is not the case, however. The germs multiply at the site of inoculation and enter into the blood stream, from which they may settle in any organ of the body.

About six weeks after the first sore a skin rash, sore throat, sores in the mouth or around the body orifices, headaches, generalized pains and slight fever usually develop. A person may not consider any of these symptoms signifi-

cant. This is spoken of as the secondary stage of syphilis and is the most dangerous stage for transmitting the disease to others.

The disease is transmitted at this time by certain discharges from the skin, mouth and other body orifices that are highly contagious because they contain the germs. While the most common means of infection is through sexual contact, extragenital infections can occur. The Wassermann test is always positive at this stage. Treatment is less effective as a means of cure when it is begun at this time but is nevertheless successful in a high percentage of cases. It is essential however that treatment be undertaken to overcome infectiousness to others and to prevent further serious consequences.

If an individual receives no treatment or inadequate treatment the germs may settle in any part of the body and slowly but progressively, over a period of years, damage and destroy tissues in the brain, heart, nerves and blood vessels. This is known as the third stage of syphilis and can occur any time between five and thirty years or more after the initial sore. In the third stage, treatment is obviously less efficacious than when given earlier. At this period the individual is usually not infectious to others and may or may not have symptoms other than a positive Wassermann reaction which enables a diagnosis of the condition. A method has recently been introduced whereby heat is produced through artificially induced fever by means of a special apparatus or by injecting malarial germs. This offers hope for cure in selected cases even in the last stages.

FREQUENTLY the physician is asked whether every individual who is exposed to syphilis contracts the disease. There is no way of determining susceptibility to the disease, but for the sake of safety it should be assumed that every one can contract it if exposed to it. The best prevention is to refrain from promiscuity. If exposure has occurred the immediate use of soap and water followed by the rubbing of mercury ointment into the exposed parts may help. A physician should be consulted immediately. It is more difficult for the female than the male to prevent infection after exposure.

It should be understood that syphilis is not to be regarded as a hereditary disease. In cases of congenital syphilis the sperm does not carry the infection, but when the infection is present in the husband, the wife becomes infected. Thus the infected blood of the mother transmits the disease to the growing embryo. It is possible to eliminate entirely all cases of congenital syphilis. This would be possible if every pregnant mother would submit to a Wassermann blood test before she is five months pregnant. This test should be performed routinely on clinic and private patients, irrespective of financial or social status. Every woman would be willing to have this measure taken if she understood its value and significance.

If syphilis is diagnosed in a pregnant mother and treatment is started before the fifth month and continued throughout the pregnancy, it will result in the birth of a normal child free from syphilis. While congenital syphilis can be helped if it is discovered after the birth of the child, there is a disastrous outcome in about 80 per cent of the cases, to say nothing of the sorrow of such parents and children. Such tragedies must be prevented!

EVERY pregnant mother should insist on a Wassermann blood test. Also, Wassermann tests should be taken by every couple before marriage; as a routine procedure in periodic health examinations; in all food handlers, domestic help, barbers and beauticians, and in any chronic sickness where the diagnosis is not clear. Leading hospitals now make this test a part of their routine medical examination. The United States Military Academy at West Point requires a Wassermann test of its candidates.

From an industrial standpoint, loss of time from work, chronic invalidism and permanent disability are seen as consequences of syphilitic infection, which, if untreated, results in paralysis, mental disorders, heart disease and numerous other conditions.

Adequate treatment can cure most of these infections. Injections of specific drugs, such as arsphenamine or other arsenic preparations, are useful in the early stages, while mercury, bismuth and iodides are dependable for injections in the later stages. Repeated Wassermann tests determine the number of courses of treatment needed.

The Wassermann test is a painless procedure in which a small amount of blood is drawn from a vein and submitted to a highly complicated laboratory examination. The blood of the patient is tested for the presence of a specific substance produced by the infection. The result can usually be obtained in from twelve to twenty-four hours. For individuals who are unable to afford private care free diagnostic service for such tests is offered by the health departments of many large cities and by all state health departments. They will also supply free medication for use by the family physician in such cases. The presence of a positive Wassermann reaction is usually diagnostic of syphilis, while its absence does not always exclude the condition. In doubtful cases a Wassermann test and other special tests can be performed on the spinal fluid, and the results are usually conclusive.

It is hoped that the spreading of information concerning this disease, combined with serious effects of prevention and treatment, will materially reduce its occurrence and eliminate the terrible toll of human suffering.

# Safety and Sanitation Gain Ground

*Soibelman Syndicate*

WITH ARROWS OF TAPE LIGHTLY ATTACHED TO HIS ARMS THIS CYCLIST MAY NOW INDICATE HIS EXACT FRAME OF MIND.

*Ewing Galloway*

AN ELECTRICALLY HEATED SUIT IS THE NEWEST IN EQUIPMENT FOR STRATOSPHERE PROBING. OXYGEN IS PIPED TO THE HELMET.

*Ewing Galloway*

NEW YORK CITY IS NOW CONSTRUCTING ITS FIRST SEWAGE DISPOSAL PLANT, WHICH SHOULD CARE FOR ONE FIFTH OF THE CITY'S BILLION GALLONS OF WASTE.

# *Live* with Heart Disease —And *Like* It!

By LOUIS F. BISHOP Jr.
and RUTH V. BENNETT

## Part II

HOW to be happy with a weak heart depends not a little on the mental point of view. Take for instance the physician's psychotherapy in the movie picturing the romance of the Brownings. Can there be a century between the methods of today and of that time, when the doctors played so important a part with their saving optimism in successfully treating the charming invalid? They had to fight against the depressing influence of the ultrafeminine, feline, crêpe-hanging cousin who was trying to shoo the too attractive poetess into the yearning hereafter; it is not so different today. The domineering father of the picture is now fortunately outmoded, but there are still poor invalids who furnish backgrounds for the "goody-goody" sacrifices of their relatives. The movie clearly showed that the healthy outlook of the physicians and a lover, plus a hobby of poetry, worked quite a transformation in the invalid, even as today.

In studying this occupational question with relation to patients with heart disease, one is impressed by the importance of a hopeful outlook toward the world when faced with a chronic disease. For example, there is a woman whose very life it would seem has been swept away by events that took all she had. Yet she impresses people with her volatile spirits. She keeps busy, wilfully blotting out her memory of sadness. She thinks only of the pleasant things that have happened. In this way perhaps her ego is overbolstered, but it serves as a barrier against sorrowing moments, which have less chance of eating into the fibers of her being and making her an embittered companion. We could well apply her psychology to the leisure of the sick whose hearts are not up to par. Let them have something they like to do, and pleasant thoughts will banish forebodings of their ailment.

Frequently the young mother with heart disease finds ordinary household duties too heavy for the heart. There are many other activities in which she can participate and through which she may add to her value as a companion to her children. She can keep up the study of languages by the use of simple textbooks and phonograph records. Or she can delve into some other subject which may interest her, such as journalism, public speaking, voice culture or radio broadcasting. When young sons and daughters are busy in school the young mother who is not too robust can solve the problem of her leisure in some one of these ways.

In the course of the practice of cardiology one sees many examples of adjustment to new occupations. Recent examples of this are two young women. One of these, a teacher, now takes orders for special antiques. She will seek perhaps a coveted cherry high-boy for one customer, a piece of silver for another or the final missing plate to complete a Wedgewood set. She gets the sunshine and change of scene as well in her trusty car and collects a commission.

THE other young woman often felt as though she had come to the end of her tether. The development of a rock garden from wild plants has come to her rescue. This woman's knowledge of plants of the woods came about through her interest in the Girl Scout activities of her young daughter, which at first were mainly concerned with differentiating trees by their leaves. Then the toboggan of 1929 took her house with its beautiful formal rock garden and her gardener as well. She owned an old, rundown, dilapidated farm to which she retired, with few dollars but a big investment in nature lore. She trudged through her acreage, some of it wooded, dug up wild plants and transplanted them among the natural rocks by a small brook at the side of her farmhouse. Her wild garden soon became a thing of beauty, with its bloodroot, rock columbine, Jack-in-the-pulpit, Dutchman's breeches and soft ferns. She gained in health and felt in the end that her former stereotyped garden was not half so interesting because she was trying now something new, her own experimentation with color, growth and proportion.

The ordinary rock garden is good for the heart gardener if some other strong arm can haul the rocks when a natural rockery is unavailable. There is color opportunity for one who is artistic, and the plants grow easily.

For those with limited strength, one of the big values of all leisure activities that take one ambling around the city or country, from rock gardens to antiques, is that of being able to stop when tired. There is no competition.

In advising many a cardiac patient what to do with the new leisure which it is often necessary to prescribe, cutting down on his old occupation may be better than suggesting something entirely new, for his accustomed work is often performed with less effort. For example, when a man is skilled at a sport, he expends less effort. For nine holes of golf a good golfer makes few shots, and the motions are synchronous and rhythmic. So limit yourself to nine holes unless your score ranges in the eighties. Any new work requires more effort mentally and physically, and a sense of ease is at first lacking at one's job. Some of the chaps sent to conservation camps have been wofully unsuited to the work, and a breakdown followed because of latent impairment. Yet they could have gone on with their habitual work. People can do fairly strenuous work with heart disease if they have grown up with it. Instances of this may often be seen in hospital wards. An aged man, 75, entered the hospital. His occupation he said was swinging a pick and shovel. Yet this man had advanced arteriosclerosis. His arteries were as thick as pipe stems.

Many persons, on the other hand, seem to gain in health from a change of occupation.

Of course, one must always remember that the type of man who has been a driving force in his business life will probably never be a complete dabbler in his leisure activities, so supervision is the watchword in many of these men "whose pumps have broken down."

It is worthy of note to find how much of the world's work is being done by people who are not inspired. The tedium of their humdrum, mediocre lives is brightened by the hope that some day they will light up the world by some obscure talent of which they are secretly proud. In the meantime the top of the ladder is kept clear of the traffic. Hanging in my office in a place of honor is a picture of a ship with bravely flying sails. This picture is often shown to those with fear of their handicapped hearts, for this

HARRY SPEERS
SHE OWNED AN OLD RUNDOWN DILAPIDATED FARM TO WHICH SHE RETIRED, WITH FEW DOLLARS BUT A BIG INVESTMENT IN NATURE LORE.

SINCE COOKING HAD ALWAYS FASCINATED HER, SHE CONCEIVED THE IDEA OF PUTTING UP JAM OF DIFFERENT FRUITS IN TINY JARS FOR GIFT SHOP TRADE.

is one of many paintings done by a boy in his twenties who all his life has had valvular heart trouble. His interest in beauty releases him from an innate timidity and makes him forget himself and his heart. While perhaps his name may never be among the mighty, his work gives great joy to himself and to all who are interested in him.

ANOTHER latent talent that may be coaxed into being is that of writing poetry. For one who has even a rudimentary ear for rhyme and rhythm much enjoyment may come from writing poetry. Take any idea, simple or complex, decide in what form it is to be cast—ballade, triolet, palindrome or what-have-you—and go to it. Good poetry has been produced by persons who never realized that they had any aptitude until forced by circumstances to try. Any good dictionary gives the accepted forms for various styles of verse, so look up the three mentioned.

A woman, once well-to-do, lost most of her income and much of her health. Cooking had always fascinated her, so she conceived the idea of putting up jam of different fruits in tiny jars and selling them to gift shops as presents for invalids or for bridge prizes. She has also concocted a fine pickle which finds a wide market. Immensely interested, she thrives on her work.

An engineer whose health is not of the best has to make addresses before various chemical societies. He has phonograph records made when he talks on the radio. This helps to check voice and enunciation, and he is able to judge his speech from the point of view of the audience. In this way he studies his weaknesses in speechifying.

It is quite evident to the physician that all these types of occupations fall within the range of well compensated valvular heart disease so frequently encountered in young adults.

After an attack of coronary thrombosis long periods of rest are often essential for the patient. A cheerful, versatile nurse is perhaps the prime requisite during this time for she is often the important person who must suggest these new activities to her patient and, in close cooperation with the physician in attendance, help the patient initiate them and judge of their effectiveness.

SHE is often faced with the query of the patient, "What'll I do?" Let her teach him first not to be afraid. Then let her suggest what he can do and put courage in him with an avocation so he can forget his weak heart. There is no royal road to reconstruction for a failing heart; but by knowledge and perseverance, interest can be stimulated in something which will often successfully restore a person to usefulness and rescue him from invalidism. To a sensitive nature the shock of a diagnosis of

coronary thrombosis will often be lessened as time goes on by the pursuit of some interesting avocation. After the nurse is gone the invalid will frequently be alone, and some absorbing interest must make the heart sufferer independent of continuous companionship.

A cheerful note has to be a part of the treatment of heart disease almost as often as one uses cheese with an Italian dinner, and sometimes a big spoonful is needed!

THE solitary invalid can indulge in study, crafts or games, often each overlapping the other. Many of these can be continued later with his friends when he is up again. Certain things can be done even when supine, such as braid weaving with a form suspended over the head; tying and untying knots, or remembering the forgotten lines of a poem for some inquirer in the newspaper. Genealogy furnished interesting hours for one architect. Folklore is absorbing reading to all. Books about nature will frequently stimulate interest in plant life, to be pursued later when the patient is allowed out of bed. A man in the country while confined to bed for some time felt a breath of ozone from his native Nova Scotia when he received some fine strawberry plants all ready to set out. So anxious was he to get out to his garden that he became a model patient; eventually he grew the largest berries in town—and incidentally made an excellent recovery.

When a patient has insomnia let him try this Manhattan cocktail at 5 a. m. This little incident may help some person with heart disease who often cannot sleep in the early morning hours or perhaps wakes in the middle of the night. The hours seem long and weary, and symptoms are apt to appear worse than they actually are; breathing may perhaps seem more labored than it really is after lying awake hour after hour. This little pastime may banish one bogy of the invalid, insomnia. This lady of Manhattan had the habit of waking up at about 5 o'clock. So she calls this pastime of hers, "Manhattan cocktail at 5 a. m."

When she first began to wake at this unseemly hour, she tried sedatives, counting sheep and so forth. Then she would pause for a moment to think of what to do next, and one morning, idly listening to the noises of her particular street, a little discouraged, she began to realize that there was a different, early morning workaday world. Her listening ear became more and more sensitive to its insistent overtones, and she became attuned to the sounds of the world outside, which had been more or less unconsciously dinning but never before appreciated. She came to listen each morning for this symphony of sounds of the busy serious world below her window. She found that it varied from the alcoholic diminuendo of the departing night club revelers to the gradually rising crescendo of the workaday island *(Continued on page 274)*

## SUGGESTED ACTIVITIES FOR PERSONS WITH IMPAIRED HEALTH OR PHYSICAL HANDICAPS

**D**

Decorating, interior
Decorations, collecting wild, in the woods
Delinquent children, helping homes for
Dogs, hot, selling
*Dogs, as pets
Dogs, breeding
Dormitory mother, college

**E**

*Ear, listening
*Economic development, follow, of any country by reading
Eggs, barter
Elephant parties, white
Exhibition, grow flowers for
Exhibition, make jam for

**F**

Farmer, gentleman, grow onions, tomatoes, fruit, etc.
*Financial advisory service
Firearms, selling
Fishing from motor or houseboat
*Forgotten lines of a poem, send, to newspaper inquirer
Flowering shrub hedge
Flowers, raise, for flower show or state fair
Frankfurters, sell, at roadside stand in front of home
Funds, alumni anniversary

**G**

Gardening, all kinds, flower, vegetable, rock
Gardens, sell photographs of
*Genealogy
Gentleman farmer
Gentleman farmer, lease barn to summer theater
*Geographical course of reading
*Girl, send to college
Girl, make home for
Golf, sell, balls
Golf, play (but keep to 9 holes on a flat course)
Golf, repair, sticks
Graduated exercise, walk two or three subway stations beyond the accustomed one

**H**

Hedge, grow flowering, using a different blooming each month
*Hero worship, by collecting clippings and other data concerning career
Home for business girl, niece, nephew, bachelor
Home for delinquent children, help
*Home toyeries
*Honeymoon bridge
Hooked rugs, make
Hospitality, sell (take tourists)
Hostess, college dormitory
Hostess, cruise
Hot coffee, sell
Hot peanuts, sell
Hot dogs, sell
Houseboat, pursue reading course, fish or knit on

**I**

Ideas, get interior decorating ideas for home by window shopping
*Illuminating
*Insomnia, how to confound
Insurance, sell
Iris bulbs, cultivate

*(To be continued)*

* Activities which are suitable for the bedridden.

# Miss Fanny's Tea Room

## By FLORENCE MARVYNE BAUER

CAST OF CHARACTERS

MISS FANNY FOSDICK, a small, fragile person in her forties

ELLEN STEELE, a robust girl in her early twenties

MR. HENRY, a bulky, violent person

MR. AND MRS. COOPER, just average parents

JIMMY COOPER, who might be any boy of 10

JANE COOPER, his sister of 12

MR. COLE, a pleasant gentleman

MRS. CUNNINGHAM, who would rather run other people's affairs than her own

MR. CUNNINGHAM, merely the husband of his wife

ELIZABETH CUNNINGHAM, the kind of girl her mother was

DR. LAWRENCE ARNOLD, a kindly, middle-aged "family doctor"

GEORGE DAWSON, who plainly shows he likes to eat

MABEL DAWSON, his wife, who is more than a little foolish

MRS. WALDO VANCE, an affected lady who *adores* famous people

MR. VANCE, who finds his wife amusing

DR. MACON, a tall, distinguished gentleman whose fame has impressed others more than himself

SCENE

*A tea room. Upstage, setting cornerwise toward audience are two tables, one at left and one at right, for four persons. Upstage center is a serving table with a white cloth. Just above center stage is another table with three chairs. At left and right of it and downstage are small tables, each for two persons. At extreme left downstage is another small table for two. At extreme right downstage is the cashier's table or small desk with telephone and menu cards. Two doors —the one at right to street, the one at left to kitchen and upstairs—should be above center.*

*It is about 5 o'clock one afternoon in spring. When curtain rises,* MISS FANNY FOSDICK *is arranging roses in bud vases at the serving table and singing softly. After the audience has had an opportunity to look over the set,* ELLEN *enters from left, carrying a tray on which are two or three bottles of catsup, pepper and salt shakers, sugar bowls and silver.* MISS FANNY *puts a bud vase on each table and talks with* ELLEN, *who is placing the catsup on the serving table and arranging the tables.*

ELLEN *(entering):* Sorry to be late, Miss Fanny. I missed my usual street car.

MISS FANNY: Better hurry now. Today being Thursday we'll have more than usual.

ELLEN: I know—maids' day off.

MISS FANNY *(setting bud vase on desk):* I went over the books this morning, and our finances look fine.

*(Enter* MR. HENRY, *right, looking like a fast moving thunder cloud.* MISS FANNY *leads way to small table down left. He stops at large table, center.)*

MR. HENRY *(waspishly):* I prefer to sit here. *(Sets hat on table emphatically.)*

MISS FANNY *(being her most charming self):* It's quite all right. *(Hands him a menu card and moves his hat to a chair.)*

MR. HENRY: I'm in a hurry. Is everything ready?

MISS FANNY: The roast beef is ready; the pie will take about ten minutes and the lamb chops about twenty-five.

MR. HENRY: I'll take the beef. Wait! Do you cook in aluminum kettles?

MISS FANNY *(smiling):* Yes, we do.

MR. HENRY *(flinging down the card and looking for his hat):* That's enough for me! Where's my hat?

MISS FANNY *(still smiling):* Here you are, sir.

*(Without thanks he pulls his hat down hard and flings himself out. Exit, right.* ELLEN *gasps and stares after him.* MISS FANNY *laughs.)*

ELLEN: Heavens! Whatever did he ask that for—and get so mad about?

MISS FANNY: He is probably one of those misinformed people who believe that food cooked in aluminum utensils causes cancer.

ELLEN: I never heard that one.

MISS FANNY: It's a fairly common belief.

ELLEN: Where did it come from, do you know?

MISS FANNY: There seems to have been quite a campaign against aluminum. Pamphlets have been printed and distributed rather widely, I understand. However, I asked Dr. Arnold about it, and he says there's no foundation for the belief. Aluminum kettles are perfectly safe to use.

ELLEN: Miss Fanny, do you mind telling me something I've been wondering about?

MISS FANNY: Are you sure I know the answer? What is it?

ELLEN: Why did you come back here to start a tea room? After all the places you've been, it seems queer to me you'd come back here.

MISS FANNY: I lived here until I went to the city to study nursing.

ELLEN: I knew that; but I still can't understand what drew you back *here!*

MISS FANNY: Many of my dearest friends live here.

ELLEN: But you are so well known you could have picked any one of a dozen larger places!

MISS FANNY *(laughing):* Don't tell me a prophet hath honor in her own country!

ELLEN: Everybody is very proud of you. You know a lot of famous people. And it hasn't made you a bit stuck up!

MISS FANNY *(amused):* Goodness! Why should I be? I soon discovered, Ellen, that the more famous and successful folks are, the more delightfully modest they are.

ELLEN: I still haven't found out why you came back here.

MISS FANNY *(seriously):* I thought I might be helpful to my friends, Ellen.

ELLEN: How, Miss Fanny?

MISS FANNY: When my health failed and I couldn't go on with the work nearest my heart, I decided to do the next best thing—provide well balanced meals, home cooked, for people who have to eat restaurant meals.

ELLEN: Miss Fanny, I'm glad I had to leave the hospital and go to work, as long as I can work with you. There are so many things I can learn from you.

MISS FANNY: Thank you, dear. *(Examines each table, setting a fork straight here, a spoon there.)* I'll teach you all I can, so that when you go back you can take my place.

(*Enter right,* MR. *and* MRS. COOPER, JIMMY *and* JANE.)

MISS FANNY: Good evening. Will you sit here, please? *(*MISS FANNY *leads way to large table upstage, left.)*

JIMMY *(seating himself):* Mother, can I have a peanut butter sandwich?

FLINGING DOWN THE CARD AND LOOKING FOR HIS HAT, MR. HENRY SAID, "THAT'S ENOUGH FOR ME! WHERE'S MY HAT?"

(MISS FANNY *gives each a menu.* ELLEN *stands by with order pad.*)

MRS. COOPER: No, dear, not tonight. You had that this noon.

JANE: He's just trying to get out of eating a vegetable.

JIMMY *(not too convincingly):* I am not!

MR. COOPER: Keep out of this, young lady. Jim, me lad, you're going to eat a dinner tonight.

JIMMY: I'll eat potato and meat, but I don't see why I have to have vegetables.

MISS FANNY *(speaking to Mrs. Cooper):* Do you mind if I make a suggestion?

MRS. COOPER: Not at all.

MISS FANNY *(pointing to card):* This salad is finely ground raw vegetables in lemon gelatin. Perhaps Jimmy would rather have that than a cooked vegetable.

JIMMY: I don't like salad dressing.

MISS FANNY: We can serve it without dressing. We also have soup with the vegetables cut small.

JIMMY: Uh-uh. I rather have the other.

JANE: Can I have some too, Mother?

MRS. COOPER: *May* you, Jane. Yes. Bring her an order too.

*(Enter* MR. COLE, *right.* MISS FANNY *leads him to small table down right. The* COOPERS *continue to order in pantomime.)*

MISS FANNY: Good evening.

MR. COLE: A friend told me you have home cooking here.

MISS FANNY *(handing him a menu):* Yes. We also try to serve well balanced meals.

MR. COLE: So I heard. What's in this pie?

MISS FANNY: Veal, potatoes, carrots, peas and celery, simmered together, then turned into a baking dish and covered with a thin crust. We serve an orange and grapefruit salad with it.

(ELLEN *exits left.*)

MR. COLE: Certainly sounds good. I suppose you advise milk?

MISS FANNY *(smiling):* Have you had your glass today?

MR. COLE *(fervently):* Yes, thank heavens!

*(Enter* ELLEN *to take Mr. Cole's order from Miss Fanny.)*

MISS FANNY: Then if you take a custard with rice for dessert you won't need another, I guess.

MR. COLE *(grinning):* Custard it is. I drink milk from a sense of duty.

MISS FANNY: You are to be commended for drinking it.

(*Exit* ELLEN.)

MR. COLE: I wonder why your face is familiar.

MISS FANNY *(smiling):* And I was wondering why yours is to me.

MR. COLE *(closing his eyes and wrinkling his brows meditatively):* Sometimes—I can put a familiar face in its proper background—I have it! You belong in a hospital—in a white uniform—with doctors—

MISS FANNY *(nodding):* Possibly—

MR. COLE: You must be the woman who saved my life. What's your name?
*(Enter* ELLEN, *to serve Coopers.)*

MISS FANNY: Fanny Fosdick.

MR. COLE *(triumphantly):* That's it! Dr. Macon told me when I left the hospital that my recovery was due to your patient, persistent work.

MISS FANNY *(enlightened):* Oh-h, yes, I remember your case. You were sensitive to garlic; and you were terribly fond of French and Italian cooking.

MR. COLE: You've got it.

MISS FANNY: Dr. Macon turned your case over to me to find out whether your trouble was due to food of one kind or another while he worked along other lines.

MR. COLE: You certainly saved my life!

MISS FANNY *(laughing):* That's more than slightly exaggerated.

MR. COLE: Anyway, you made life worth living. I haven't had one of those awful headaches for years, and hives are a thing of the past.

MISS FANNY: I'm so glad.

(*Enter* CUNNINGHAMS. *Exit* ELLEN.)

MRS. CUNNINGHAM *(to Elizabeth):* You mean that little Mrs. Dawson? Oh, she's *much* worse. But that husband of hers doesn't seem to care.

ELIZABETH: I like him, Mother.

MISS FANNY: Good evening, Bessie—and Mr. Cunningham.

MRS. CUNNINGHAM: How are you, Fanny? I'd like to introduce my daughter, Elizabeth. She's home from college for a few days.

MISS FANNY: How do you do, Elizabeth? Your mother and I are old friends. You look very much as she did as a girl.

ELIZABETH *(doubtfully):* Thank you.

*(They sit at large table upper right.* MISS FANNY *gives them menu cards. They order in pantomime.)*

"DARLING, CAN YOU FORGIVE ME?" SAID MABEL PENITENTLY. "I'LL NEVER WORRY YOU AGAIN. I'LL DO EVERYTHING DR. ARNOLD TELLS ME TO SO I CAN GET WELL AND WE CAN BE HAPPY ONCE MORE."

JIMMY: Say, Mom, can I have some more of that salad? I'd rather have that than that old custard.

MRS. COOPER: If you'll drink another glass of milk, Jimmy.

JIMMY: Okay!

*(Enter* ELLEN *to serve Mr. Cole.)*

MR. COOPER *(beckoning Ellen):* The boy wants another serving of salad and a glass of milk, please. (ELLEN *nods.*) Dora, we better come here *every* Thursday. Did you enjoy your dinner?

MRS. COOPER: Everything was delicious. Did you like it, Jane?

JANE: I hope we come here often.

JIMMY: I wouldn't mind vegetables if they were cut up small like in that salad.

JANE: He's afraid he'll wear out his teeth if he has to use 'em too much!

MR. COOPER: That's enough from you, young lady.

MRS. CUNNINGHAM: I hear Mrs. Vance is running true to form. She has some famous doctor staying at her house this week.

MISS FANNY: I wonder if it's some one I know. Do you remember the name? *(She gives the Cunningham order to* ELLEN, *who exits.)*

MRS. CUNNINGHAM: I did hear, but I've forgotten.

*(Telephone rings.* MISS FANNY *answers.)*

MISS FANNY: Miss Fanny's Tea Room . . . Yes . . . vegetable and cream of mushroom . . . vegetable? . . . Yes, I'll have it ready when he stops. Thank you. *(She beckons* ELLEN, *entering left to serve Jimmy's salad and milk.)* Dr. Arnold's nurse just called. Mrs. Arnold is ill. Doctor is stopping here for a bowl of vegetable soup. Will you ask Cook to fix it for taking out?

ELLEN: Yes, Miss Fanny. *(Exit.)*

MR. COLE: This pie is wonderful, Miss Fosdick.

MISS FANNY: Thank you. Are you ready for your custard?

MR. COLE: Not quite.

*(Enter* DR. ARNOLD, *right.)*

MISS FANNY: Good evening, Larry.

DR. ARNOLD: Hello, Fanny. Soup ready?

MISS FANNY: Just a minute, Larry. I'll see. *(Exit left.)*

MRS. CUNNINGHAM: Good evening, Larry. Come over and sit down.

DR. ARNOLD: I'm not staying. I just stopped for some soup. Janet's having some trouble with pleurisy again.

MRS. CUNNINGHAM: I heard today at the club that she was ill. We commented on the fact that so many doctors marry frail women.

DR. ARNOLD *(smiling):* Maybe they weren't frail to begin with. The wife of a doctor leads a hectic life, so they say!

MRS. CUNNINGHAM *(spiritedly):* But it certainly is true that doctors' wives are sick more often than other women.

DR. ARNOLD *(impatiently):* Nonsense, Bessie! You are too intelligent a woman to peddle that fallacy. Because a woman is married to a doctor her illnesses are more conspicuous.

*(Enter* ELLEN *to serve Cunninghams; after her,* MISS FANNY *enters, carrying saucepan with close fitting cover.)*

MISS FANNY: Here you are, Larry. There's enough for you too. If you go right home it won't have to be reheated.

DR. ARNOLD: I've a call—

MISS FANNY: Which can wait for a bowl of soup!

DR. ARNOLD: But Fanny—

MISS FANNY *(with mock severity):* But me no buts, sir! Go right home, eat slowly—*with your wife*—and make your call afterward. Your opinion then will be more valuable to your patient than now.

DR. ARNOLD: All right, Fanny. You win! *(Takes saucepan. Exit right.)*

MISS FANNY: Good night, Larry.

DR. ARNOLD *(offstage):* 'Night, Fanny.

*(Exit* ELLEN. *Enter* GEORGE *and* MABEL DAWSON. *It is obvious they have been quarreling.)*

GEORGE: Hello, Fanny.

MISS FANNY *(leading them to small table down left, hands them cards):* It's nice to see you, George. How are *you,* Mrs. Dawson?

MABEL *(in whining voice):* No better, thank you. (ELLEN *enters, serves dessert to Coopers and to Mr. Cole.)*

MISS FANNY: I'm sorry to hear that. What seems to be the matter?

MABEL: It's my stomach. Everything distresses me.

GEORGE *(gruffly):* If you'd eat a decent meal once in a while—

MABEL *(tearfully):* George has no sympathy for me.

MISS FANNY: Perhaps we can cook you something special.

GEORGE: That's awfully good of you, Fanny. I'll take this pie. How big is it?

MISS FANNY: Mr. Cunningham has one.

GEORGE *(craning to see that gentleman's plate):* Hello, Sam! (MR. CUNNINGHAM *nods.* MRS. CUNNINGHAM *pretends not to hear.* ELIZABETH *smiles and nods.)* Doesn't look half big enough to fill *me* up, Fanny. Better bring me two. He's eating as if it were good.

(ELLEN *looks doubtfully at* MISS FANNY.)

MISS FANNY *(smiling):* Yes, bring him two. I've seen him eat before, and I know his capacity.

(ELLEN *writes on pad.*)

MABEL: Isn't it awful the way he eats? Have you some raw carrots, Miss Fanny?

MISS FANNY: Yes. Why?

MABEL: I'll take two, scraped—and a cup of Yerba maté.

GEORGE: Good heavens, what's *that?*

MABEL: Don't be vulgar, George. It is South American tea, valuable for an unusual percentage of vitamins.

GEORGE: Do you know anything about it, Fanny?

MISS FANNY: Only that it isn't what it is advertised to be. We don't serve it, Mrs. Dawson.

MABEL *(weakly):* I suppose it will have to be weak green tea, then.

MISS FANNY: Will you have some pie too—or some of the roast?

MABEL: Oh, my, no! Nothing else.

MISS FANNY *(surprised):* Nothing else! You must have been out to a luncheon.

MABEL: No. I had a raw turnip this noon, and I drank a glass of tomato juice. I couldn't have orange juice because I had that for breakfast.

MISS FANNY: But, Mrs. Dawson, you aren't eating enough—

GEORGE: Doesn't it make you sick, Fanny? That's the way she's been eating lately. Won't eat anything cooked; she says it's *dead* food. A while ago she wouldn't take any food unless it came in capsules. Before that she was living on pineapple and lamb chops. She's thrown her whole system out of kilter!

MISS FANNY: Perhaps if you went to your doctor—

MABEL: George made me go to Dr. Arnold a while ago.

MISS FANNY: Did he find anything seriously wrong?

GEORGE: Nothing more than starvation. *(To Mabel)* What did you do with that diet list he gave you?

MABEL: I couldn't eat all that food! I threw the list away.

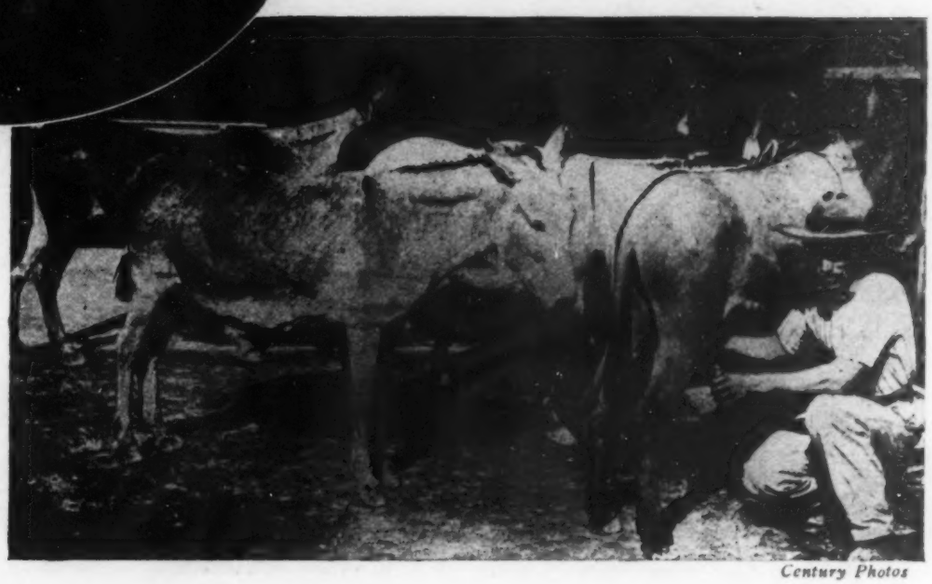
GEORGE *(angrily):* Well, I'll be— *(To Fanny)* He gave her a well rounded diet and told her to start with small amounts and gradually work up. *(Continued on page 245)*

# The MILKY Way

PARIS DURING THE SPRING AND SUMMER IS TREATED TO GOAT'S MILK; THE CUSTOMER RECEIVES IT FRESH EVERY MORNING.

HERE THE MODERN MILKMAN IS DELIVERING HIS PRODUCTS FRESH AND SANITARY AS HIS CUSTOMERS ARE ASLEEP.

COSTA RICAN MILKMEN HANG THE CONTAINERS ON EITHER SIDE OF THEIR MULES AND SELL THEIR PRODUCTS TO HOUSEWIVES AT THEIR DOORS.



IN THE WEST INDIES THE NATIVES MAKE USE OF THEIR DONKEYS' MILK IN JUST THE SAME MANNER AS MILK FROM COWS IS USED IN YOUR HOMES.

*Century Photos*

# The Doctor Abroad— FRANCE
## Part III

### The Sixth of a Travel Series on Points of Historical Medical Interest

By LOGAN CLENDENING

AFTER VISITING Paris and the hospitals where the French school worked, we turn to the West, where lived the greatest of all these French clinicians of the early nineteenth century—greatest as measured by the opinion of a century later—Laënnec.

To visit his shrine, one must make a long journey into the West of France, to the little city of Quimper, in Brittany. He did his work in Paris, but he was born in Quimper, spent his boyhood and youth there and began his medical studies in the nearby city of Nantes.

The house where he was born no longer stands, but there is a statue of Laënnec in the square by the cathedral. It would perhaps be an excess of sentimentality and hero worship to visit Quimper just to see a statue if it were not that the journey takes one through some of the most famous countryside in the world, Normandy and Brittany. It is possible, of course, to go directly to Quimper from Paris by train, but if there is any way that you can manage to do it by automobile, bicycle or on foot, by all means do so, and make the circuit of the two provinces of the western peninsula.

QUIMPER is situated on the banks of a lovely canal, bordered by horse chestnuts with a mauve or pink blossom of particular beauty. If you stay at the Hôtel de l'Epée, the "Hotel of the Sword," your room will probably open on the canal, and in the morning you can see the women doing their laundry on the banks.

The native costumes, so widely known, the velvet jackets and beribboned hats of the men, the coifs or headdresses of the women, the

THE NECKER HOSPITAL IN PARIS DISPLAYS A MEMORIAL MEDALLION TO LAENNEC, INVENTOR OF THE STETHOSCOPE.

sabots for both, are still in considerable evidence, although said to be less frequently seen than formerly. Nowhere else in western Europe, except in Bavaria to a limited extent, have these Old World habits been so well preserved from the inroads of modern civilization as here. If you do not have good luck in finding them, plan to go through Concarneau on the southern coast line of the peninsula. If you arrive on market day, you are sure to see a throng of native costumes.

Also on the way back to Paris, stop at Carnac to see the great menhirs and druid stones, fascinating to any anthropologist.

With Laënnec, modern clinical medicine came to maturity. The ideas had indeed been prepared for him through several centuries. But he took advantage of them and prepared the way for the future.

Anatomy, at least gross human anatomy, had been well established when he came on the scene. Physiology of circulation, respiration, the mechanics of the heart and lungs, muscle and nerve, excretion, and something of sight, hearing and the special senses, were familiar to all. Gross pathologic anatomy was being developed as much was still to be learned, but there was no longer any prejudice against the autopsy.

The modern idea of clinical medicine was promulgated by Sydenham when he pointed out there were different diseases. There was not simply one disease, which had different symptoms, as the older masters thought; but there were separate diseases, and each had its own natural history.

THE great clinical teachers such as Sylvius and Booerhaave had emphasized the importance of learning disease at the bedside. And Morgagni had emphasized the importance of carrying the study to the autopsy room.

But all this was overlaid and obscured by the habit of explaining everything on the basis of a system, a theoretical explanation of disease. It applied equally to clinical medicine, therapeutics and pathology. Thus right in Laënnec's time, his bitterest rivalry was with Broussais, a fellow Breton nine years Laënnec's senior, who taught the doctrine of irritation; namely, that disease was dependent on irritation of the mucous membrane of the gastro-intestinal canal. There was Cruveilhier with his phlebitis theory, and Cullen in Edinburgh and Hahnemann with his homeopathic system.

Laënnec was born in Quimper, Feb. 17, 1781. The birthhouse, 2 Rue du Quai, was razed about 1900. I cannot find any record of an exact date, but in 1919, on the occasion of the centenary celebration of the invention of the stethoscope, a tablet was placed on the house which was erected on the site.

In 1868 a statue of Laënnec by Le Quesne was placed in the Place St. Corentin, on the north side of the cathedral. (Hale-White says "opposite the west end of the cathedral," but this is wrong.) The statue was the gift, through public subscription, of all the physicians of France.

THE AUTHOR STANDS BESIDE THE STATUE OF LAENNEC AS IT LOOKS TODAY IN QUIMPER.

THE nearby town of Nantes is also a Laënnec shrine because here he studied medicine under his uncle, Guillaume, a graduate of Montpellier. There are, however, no buildings or memorials of him there. At the old Hôtel-Dieu he studied from 1795 to 1800.

Then he went up to Paris. His medical career was brilliant. Although their juniors, he studied with Bayle and Dupuytren, all of them recognizing the primary importance of pathologic anatomy. And their pathologic anatomy broke new ground because it was based on Bichat's ideas of tissues as fundamental units. Morgagni had based his pathology on the diseases of organs. The new pathology considered that con-

JEAN NICHOLAS CORVISART WAS APPOINTED CHIEF PHYSICIAN AT THE HOPITAL DE LA CHARITE IN 1788, LATER BECOMING FRIEND AND PHYSICIAN TO NAPOLEON.

nective tissue, to take an instance, reacted in a certain pathologic way regardless of whether it was the connective tissue of the liver or the lungs.

In 1816, on the death of Bayle, Laënnec was appointed to the Necker Hospital. This was not considered a particularly good appointment at the time, but he accepted it because the hospital had a garden in which he could walk. His health even then was beginning to fail, and the outdoor life seemed instinctively to appeal to him. Either in this garden or the adjacent Tuilleries he was walking one day, pondering the case of a young woman whom he describes on almost the first page of "De l' auscultation médiate." She presented symptoms of disease of the heart. "Owing to her stoutness, little information could be gathered by application of the hand and percussion. The patient's age and sex did not permit me to resort to the kind of examination I have just described (i. e., direct application of the ear to the chest). I recalled a well known acoustic phenomenon; namely, if you place your ear against one end of a wooden beam the scratch of a pin at the other extremity is most distinctly audible. . . . Taking a sheaf of paper I rolled it into a very tight roll, one end of which I placed over the precordial region, whilst I put my ear to the other. I was both surprised and gratified at being able to hear the beating of the heart with much greater clearness and distinctness than I had ever done before by direct application of the ear."

These words of Laënnec are the first-hand description of the story of the invention of the stethoscope. Tradition says that in his walk, with his stout patient in mind, he saw some children playing with some boards; one of them would place the ear to one end of the board, and at the other end a companion scratched a message with a pin. Dr. Sigerist quotes this incident in "The Great Doctors," and as Dr. Sigerist is a responsible historian, there must be some foundation for it.

Jean Nicholas Corvisart, whose career must be considered as a prelude to Laënnec's, was an astute clinician. Born in 1755, in the little village of Dricourt, in the champagne county, then called the Department of Champagne, now Ardennes, on the extreme eastern border of France, he was educated at the Hôtel-Dieu under Vicq-d'Azyr, Petit, Desault and Portal. When he once was infected by a dissection wound in the finger, the devoted attendance of Desault, he always believed, saved his life.

He refused an appointment at the Necker because he would not wear a wig while attending his patients. He was appointed to the Charité, where, in 1788, on the death of Desbois, he succeeded him as chief physician. In 1790 he was made professor of medicine at the Collège de France. When Napoleon served as first consul, Corvisart was his personal physician, and later he was made chief physician to the emperor, the empress and the court. It is not surprising then that when his influence was put behind the new invention of percussion it was widely used.

He was a master of physiognomy. On seeing a certain portrait he said, "If the painter was exact, this man died of heart disease." And, according to report, he was correct. Again, in consultation with Boyer, who said, "It is catarrh," Corvisart answered, "Observe that leaden color and emaciation. It is cancer."

To a young man who said he had come to Paris to study, Corvisart said, pointing to a waiting room full of patients, "Here are your books; but these are more difficult to read than the printed ones."

His relations with Napoleon were personal, as contrasted with Larrey's, which were official. As far as I can gather, Corvisart never witnessed a battle. In 1809, when Corvisart had been summoned hastily to Vienna to treat the emperor, Napoleon invited him to stay over and see a battle which was impending. Napoleon, afflicted with a skin eruption, had consulted Franck, who told him that it would be dangerous to treat it with local remedies, as they would drive it in; the elector of Tièves, he said, had gone insane from similar treatment. This thoroughly alarmed the emperor, who summoned Corvisart from Paris. After the examination he laughed and said, "Is this the reason your Majesty has summoned me on such a long journey? A little sulphur will cure your eruption." As to the elector of Tièves he scoffed at the suggestion with, "Such a comparison is ridiculous for he is an old man all worn out, while you are in good health." At any rate, his treatment was successful, and he visited Franck in order to thank him

sarcastically for causing him such a long, tiresome and wasted journey. But he did not stay for the battle.

Josephine introduced Corvisart to Napoleon at a reception given by Barras. "To what disease will the general be most exposed?" she asked. Corvisart replied, "To heart disease." "Have you written a book on that subject?" asked the general. "Not yet, but I shall publish one shortly." "Do it quickly," said Bonaparte, "and we shall discuss it together."

He first treated Napoleon for a congestion of the lungs on Aug. 16, 1803. Napoleon had tried other physicians before, including Pinel and Portal, but he immediately became attached to Corvisart. "I could see that he understood my system and that he was the physician for me."

When he had indigestion, which was often, he might roll on the floor in an agony of apprehension. "Get up!" Corvisart would say to him. "What would be said if the master of the world were seen thus crushed by fear?"

THE pleasant relations between them seem to have suffered a slight cooling toward the end. Marie Louise became as much attached to and dependent on Corvisart as was Napoleon. She was a hypochondriac of major proportions. Corvisart gave her mostly bread pills. She presented him with a bust of the king of Rome. After the first abdication he looked after her tenderly and received a grateful letter from Napoleon. But he advised her not to accompany the emperor to Elba, and this advice caused the rupture in the friendship between Napoleon and his physician. "If she (Marie Louise) had not had near her that low creature Montebello and that Corvisart, whom I now know to be a miserable fellow, she would have accompanied me." Corvisart evidently sensed that Marie Louise did not want to go to Elba with Napoleon.

When Laënnec went up to Paris to complete his medical studies in 1801, Corvisart was established at La Charité.

Laënnec did not like Corvisart personally, so the report goes, but he admired and respected him. Corvisart was often rude, rough and abrupt. Marie Louise said after he had made an abdominal examination on her that she could feel the imprints of his hands for days. But Corvisart retired before Laënnec gained his place of eminence in Parisian life, so there was never any professional jealousy between them such as marked Laënnec's relation with Broussais.

Laënnec mentions percussion somewhat in his book but with no great fervor. He says, truly enough, that the technic is difficult.

The invention of the stethoscope stimulated Laënnec to a frenzy of original work and observation. In 1818, two years later, he read a paper on auscultation to the Academy of Sciences, and in September 1819 there appeared the first edition of "De l' auscultation médiate, ou Traité du diagnostic des maladies des poumons et du coeur."

In the meantime he had observed practically all the sounds of the lungs and heart and correlated them with postmortem observations. Rhonchi, pectoriloquy, egophony and many other signs are described, and he has left first-hand descriptions of pneumonia, tuberculosis, pneumothorax, gangrene of the lungs and many other diseases, which stand as classics.

ABOUT this time his health definitely broke down, and he retired to his country home, Kerlouarnec. He returned to Paris in 1821 and at once took up an extension of the use of auscultation by means of a series of clinical lectures on the new discovery, attendance in the wards of the Necker and an extensive private practice.

His professional position was now supreme. His financial circumstances had always heretofore been precarious, but now he was established. He was physician to the duchess of Berry, which carried an income of 4,000 francs a year. From the Faculty of Medicine he received 10,000 francs; *(Continued on page 241)*

A NATIVE WOMAN FROM QUIMPER, FRANCE, DISPLAYS THE CUSTOMARY COSTUME AND HEADDRESS.

# DEATH TO DISEASE

## The Program of the Public Health Service

By

**S. R. WINTERS**

A PEEP AT UNCLE SAM'S GARDEN OF GERMS. THE WIRE BASKETS CONTAIN CULTURES OF VARIOUS KINDS OF GERMS; THE FLASKS AND BOTTLES HOLD REAGENTS AND SOLUTIONS USED FOR GROWING GERMS AND FOR CONDUCTING BACTERIOLOGIC RESEARCH.

THE death to disease program of the government becomes more decisive with the prospect of new buildings and equipment for the National Institute of Health of the Public Health Service. For recently Luke Wilson, a retired shirt manufacturer, gave to the Public Health Service a 45 acre tract of land at Tree Tops, near Bethesda, Md. The gift was offered in appreciation of the vital contributions to the health of the nation made by the heroic government scientists.

The recent federal appropriation of $1,363,000 has created the funds for immediate construction of laboratories, administration and other buildings on this site. In the meantime, generations of guinea-pigs, rabbits and mice are being propagated in the Washington experimental laboratories, and the shirt sleeves of science are rolled up in the ceaseless struggle against disease.

Physical ailments spring from most phenomenal origin, and the medical vocabulary is constantly being enlarged by the naming of new maladies. The control of bodily ills is simplified by familiarity with the cause. However, no sooner does science trace a cause and achieve a strong defense against one ravager of mankind than it is baffled anew by the presence of a newly arisen enemy. The national health scientists have a constantly changing list of the organic foes of humanity. They are actively pursuing not only mankind's age-old diseases but current health menaces as well. A cleaner public health bill is their determination.

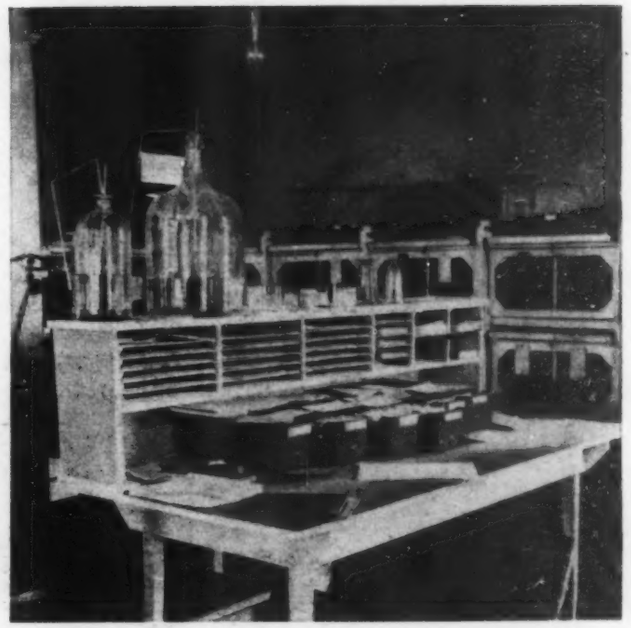
The campaign against cancer marches on. The cancer students are tinkering with a high power x-ray tube which may yield many precious secrets of radiation. After a greater colonization of mice has been effected, experiments will determine the possible rôle of hormones in the production of malignant growths. The biologic effects of the element radon are also being investigated in connection with cancer, and tumor-susceptible and tumor-resistant mice are the laboratory subjects. It is also suspected that the pink eyed Albino mice are particularly susceptible to the occurrence of primary lung tumors.

OUT in Honolulu the government health service is concerned with leprosy investigation. For generations, science has longed to say to the leper, as Christ did, "Be thou clean"; but little has ever been learned of the bacteriology of this dread disease. Present hope for more efficient study lies in the fact that rats appear to acquire

leprosy similar to the disease as it manifests itself in human beings. Studies on rats will be carried on extensively and may answer such questions concerning human leprosy as these:

1. Why are the young most susceptible?
2. Why are boys living under the same environment apparently more susceptible than their sisters?
3. Why are conjugal infections comparatively rare?
4. Why does leprosy so frequently become more active during pregnancy, parturition or lactation?
5. Why is there the variation in incidence among members of different races living in the same community and environment?
6. What causes the variation in the incidence of leprosy among groups of people living under the same housing and sanitary conditions?
7. Can the fact that the greatest incidence of leprosy occurs among those of the low economic status be explained by infection alone?

Malaria research is maintained at various stations. Here the "microbe hunters" are concerned chiefly with the search for new methods of controlling the disease and with the constant effort to improve and cheapen existing methods. The disease of malaria ebbs and flows within the United States. Its recent rise and spread in the endemic area have brought the rate back to approximately that of the 1912 status.

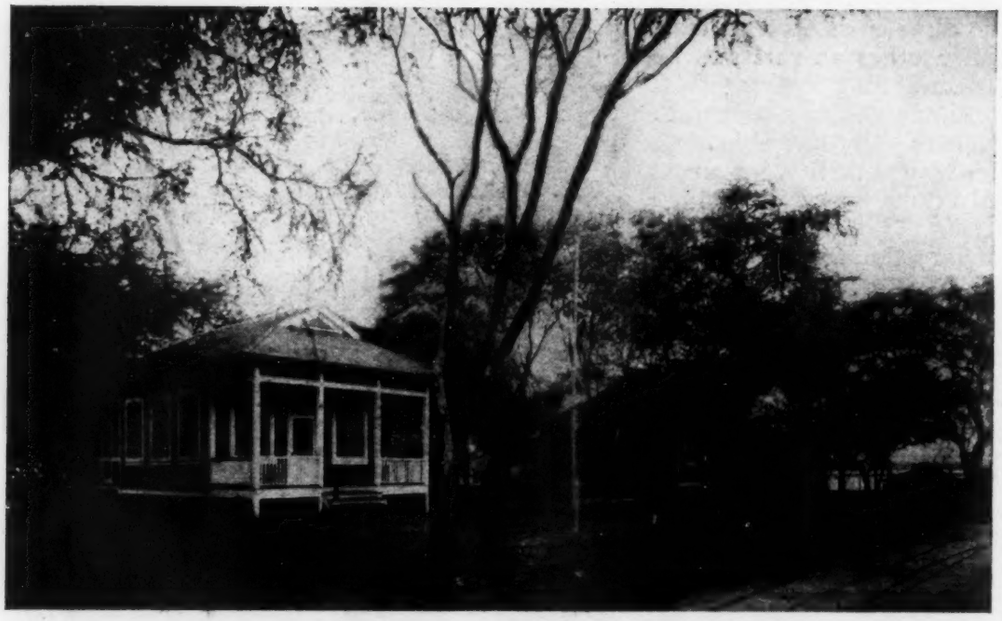


LABORATORY FOR RESEARCH IN SPOTTED FEVER, HAMILTON, MONT., WHERE THOUSANDS OF INFECTED TICKS ARE GROWN, AND VACCINE AGAINST SPOTTED FEVER IS MADE.

THE government has allocated a large portion of its health funds for the study of malaria. At one of the major stations located at Memphis, Tenn., there has been provided under the supervision of the relief administration a program for the direct drainage of mosquito ditches in sixteen states, comprising more than 50,000 miles of ditch. Drainage destroys breeding grounds where the larvae of Anopheles quadrimaculatus, the North American malaria-bearing mosquito, are found. If the immunity of a community is low, excessive production of the mosquitoes is usually followed by an epidemic outbreak. The Memphis station, in attempting to reduce federal expenses, commenced a test recently to study the comparative costs of various types of ditch lining in the expectation of devising a procedure which will be cheaper than annual recleaning.

A large laboratory for malaria research is now under construction in Savannah, Ga. The city has furnished quarters for the purpose of finding an inexpensive method of controlling this fever. It has been admitted that drainage has definitely eradicated much of the disease, but drainage is applicable only to cities and towns through relief labor. The use of oil and Paris green in the swamp land has been effective in the past, but these methods are highly

SWAMP LAND SEEN BEFORE DRAINAGE. THIS IS A TYPICAL BREEDING AREA FOR MOSQUITOES.



U. S. LEPROSY INVESTIGATION STATION, HONOLULU, ADJOINING KALIHI HOSPITAL. LIBRARY IS IN FOREGROUND, LABORATORY IN MIDDLE-GROUND.

expensive. Screening has proved only 25 per cent certain, and drugs have proved totally worthless. At Savannah, malaria specialists seek to study collections of water of the Anopheles breeding and nonbreeding types. They will study the characteristics of the water and will attempt to make the breeding waters nonproductive. If they are successful in their attempts, they will probably gain a new and better means of eradicating this fever. Furthermore, Savannah is ideal for malarial research, for the laboratory may avail itself of the city owned canal, the idle Ogeechee, which has a variety of water areas.

"The projects of the office of epidemiological studies depend much on developing circumstances." Recently there has been much concern about acute infection of the nervous system, especially poliomyelitis, or infantile paralysis. During the past year considerable attention was given to the possible usefulness of a vaccine as a preventive for this disease. The Public Health Service made a careful analysis of this vaccine and in its published reports indicated that it had "serious doubts" as to the safety of any vaccination against poliomyelitis which had thus far been prepared. Poliomyelitis and cerebrospinal fever, another nervous infection, have an expectancy for lower incidence than last year. However, these infections may at any time unexpectedly and maliciously "rear their ugly heads." So science seeks preparedness. Local outbreaks of these diseases and others will demand appreciable time and attention of the Public Health Service.

The federal scientists are still busy attempting an evaluation of a peculiar outbreak of poliomyelitis in California in 1934, especially of the hospital personnel cases. The data of the St. Louis encephalitis outbreak of four years ago and the meningo-encephalitis prevalence of 1935 in Windber, Pa., are still live subjects within the Public Health Service walls. These studies require extensive cooperation with nerve specialists, especially those who are familiar with the neuropathology of laboratory animals. Last year attention was focused on typhoid in Washington and vicinity, and its relation to oyster consumption was of particular concern.

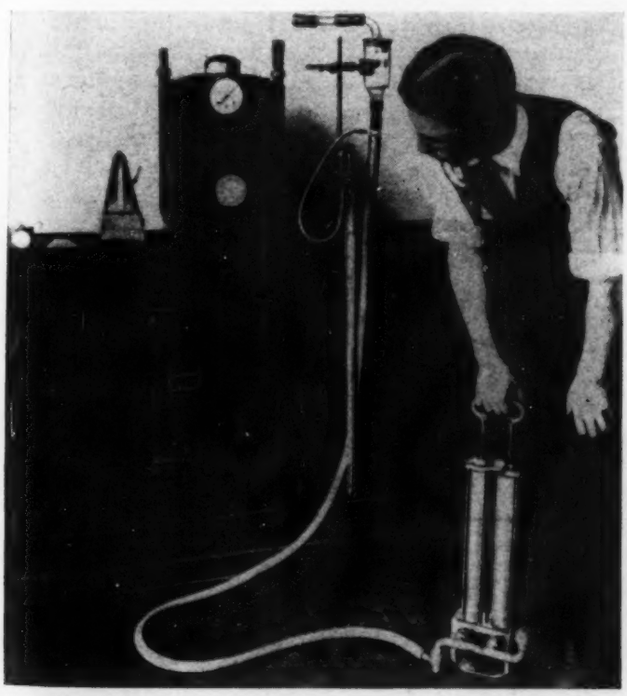
Our country can probably boast of no more courageous a set of heroes than her gallant men who bend over her laboratory test tubes. Death has felled many attempting to study the Rocky Mountain spotted fever malady; yet scientists remain undaunted and continue to toy with death in the heroic effort to perfect the manufacture of a vaccine which will combat this pestilence. Years of stubborn heroism lie behind the isolation of the spotted fever germ. The Public Health research workers have fought this sickness since 1909 in face of the fact that as a result of contagion contracted in the laboratory, sixteen of their number were dangerously bedridden, four of these failing to survive. Dr. R. R. Spencer will be immortal in medical history as the man who identified the germ. To ascertain the truth of his discovery he jabbed his arm full of the deadly germs.

Scientists desire to add to their information knowledge of new hosts for the virus in nature and to make more careful note of the means of transmission of the disease. For better understanding of this particular fever, similar fevers must be studied simultaneously. Work in the laboratories on these problems necessitates study on a little world of ticks, pigs, rabbits, rats and chicks. Scientists will not rest until they are certain of their victory over this disease and until they feel that they can erase spotted fever from their list of dangerous diseases.

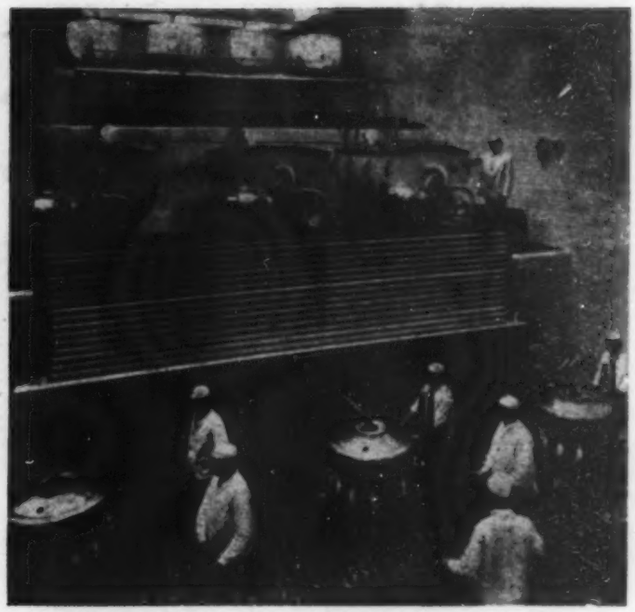
These men of medicine who have been working mainly in the Washington buildings under conditions not too perfect eagerly await the day when they can move their microscopes and germ-laden test tubes into the new buildings at Bethesda, Md., which will be practically a laboratory heaven to them.

THE work of the Public Health Service is not done within the laboratories alone, for the network of government health activity extends as well to industry, the school and the home. During the past year, newspapers have carried reports of the industrial deaths due to silicosis at Gauley Bridge, W. Va. The Public Health Service has apportioned some of its funds to make a simultaneous study of silicosis and tuberculosis among miners in the tri-state district of Oklahoma, Kansas and Missouri. They wish to determine the progress of the diseases over a ten year period among miners previously examined. In Washington there will be laboratory studies to determine the extent of the dangers created by the inhalation of such silicate dusts as mica, feldspar and asbestos as well as to establish their threshold safety limits.

There will be further investigations of industrial hygiene in the storage battery industry in an effort to learn more about lead poisoning. A medical and engineering survey of representative plants in industry will be completed for the purpose of determining the occupational exposure to lead and the methods of control. Medical studies will further glean information about signs on which diagnoses of lead poisoning can be based.



THIS IS PART OF A DUST COUNTING APPARATUS WHICH IS OWNED BY THE U. S. BUREAU OF MINES.



A MODERN PASTEURIZING AND MILK BOTTLING PLANT OF A LARGE CITY IS SHOWN. A FEDERAL ORDINANCE IS MAKING THESE PLANTS MORE NUMEROUS.

"Exposure to industrial dusts constitutes one of the greatest industrial hazards of today; adequate means of control are dependent upon knowledge of the behavior of the various dusts." The Public Health Service workers are bending their heads over their microscopes to make a thorough investigation of the dust problem. They are examining the physical and chemical properties of various industrial dusts, attempting to evaluate the effects which their inhalation and injection have on body tissues and to trace their relation to infection, especially tuberculosis. At present they have not sufficiently estimated the physical effects of such common dusts as phosphates, asbestos and ceramic materials, and a better understanding of the action of pure mineral dusts and inorganic silicates is sought.

DURING the past several years a number of devices and methods have been used for alleviation of the dust menace in industry. The government plans to make comparative studies of different methods of determining atmospheric dust, with the object of developing a simple device which can generally be used in industry. The Public Health Service will also investigate chemicals commonly used in industry and will attempt to establish maximum limits of safe atmospheric concentrations.

Oculists, architects and lamp manufacturers frequently have conflicted in their opinions about illumination. The government hopes to make recommendations to that group after its scientists have determined the most comfortable intensity of illumination for reading.

As improper diet is one of the greatest sources of ill health the Public Health workers spend considerable time in *(Continued on page 255)*

# SOME PECULIAR PATENTS

## Traps and Contraptions for the Gullible

By ARTHUR J. CRAMP

> The Congress shall have power . . . to promote the progress of science and useful arts, by securing for limited times to . . . inventors the exclusive right to their . . . discoveries.

IN THESE words the Constitution of the United States explains why this country grants patents to those who, having produced "new and useful inventions," apply for such protection and privilege. Through the Patent Office it is possible for inventors to obtain a monopoly in the manufacture and sale of their inventions. This monopoly is good for seventeen years, and at the end of this time the patented article becomes public property for any one to make or sell. When a patent is granted, the Patent Office publishes what is known as a "specification" describing the invention in such detail that on the expiration of the patent it should be possible for any one skilled in the art to make a similar product from the published description.

In this article I do not propose to deal with the technical problems involved in the issuance of patents but simply to describe some serio-comic products in the medical or quasimedical field that have been patented.

### PERKINS' METALLIC TRACTORS

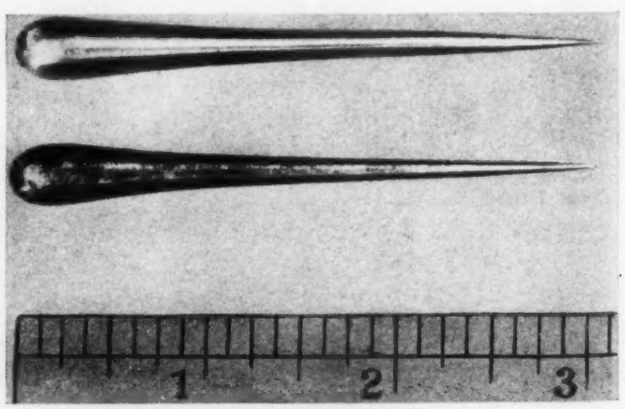
In February 1796 a patent was granted to Dr. Elisha Perkins for certain "metallic points to remove pain." Dr. Perkins was a Connecticut physician who, until the advent of his tractors, was held in good repute in his profession. The tractors, which came in pairs, were not unlike horseshoe nails in size and shape, rounded at the larger end and pointed at the smaller. What metals were used in their manufacture not even the patent specifications disclosed. It has been claimed that one of each pair was made of brass and the other of iron or steel. Perkins is said to have made them himself in a small furnace concealed behind sliding panels in the wall of his house. In use the pointed ends of the tractors were supposed to be drawn gently, with a stroking motion, over the seat of the pain toward a part of the body not affected.

Though Dr. Perkins was expelled from his local medical society and his tractors were denounced as quackery, this did not prevent the device from becoming enormously popular; perhaps, indeed, it helped to advertise it! Distinguished lawyers, clergymen, professors, legislators and even some physicians convinced themselves of the curative value of the tractors. Dr. Perkins' son Benjamin went to England, where he found a rich field for his father's invention, for credulity has no national boundaries. The tractors sold for 5 guineas (about $25) a pair and were purchased, as a contemporary versifier said, by "dukes, doctors, lords and clergymen."

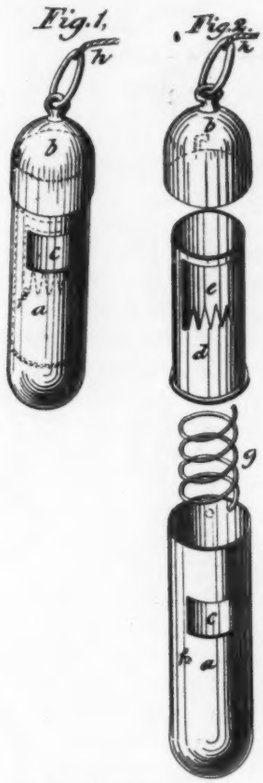
Perkinism blew up when two English physicians of a skeptical turn fabricated a pair of wooden tractors and produced results equally favorable with those obtained by the originals. Benjamin Perkins is said to have returned to the United States richer by ten thousand pounds (about $50,000) than when he left Connecticut. While he was abroad, his father, who seems to have believed in his own magic, died of yellow fever contracted while attempting to treat that disease with his tractors. Fifteen years after the patent was issued the tractors were practically forgotten.

### MYERS' TAPEWORM TRAP

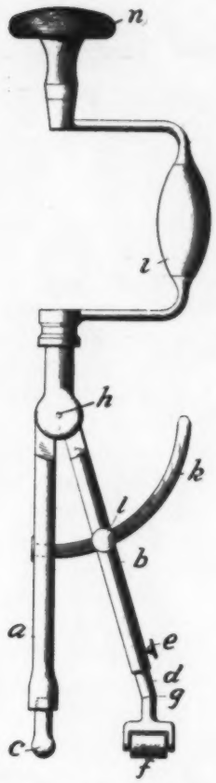
Fifty-eight years after the granting of the patent to Perkins the Patent Office issued another amazing patent in the medical field. In November 1854, patent No. 11,942 was issued to Dr. Alpheus Myers for a "tapeworm trap." The Myers device at least had the virtue of ingenuity and novelty, even if to modern minds it is reminiscent of some of the fantastic contraptions designed by the cartoonist Rube Goldberg. The trap, which was made of gold or platinum, resembled a large capsule such as is used in dispensing powders. A light but strong cord was attached to the upper half of the trap. The lower half had in its side a rectangular




"DUKES, DOCTORS, LORDS AND CLERGYMEN" WERE SAID TO HAVE SUCCUMBED TO THE CHARMS OF METALLIC TRACTORS.




GOLD OR PLATINUM WAS THE COMPOSITION OF THIS TAPEWORM TRAP WHICH IS SHOWN AS ILLUSTRATED IN PATENT SPECIFICATIONS.



THE DIMPLE MACHINE WAS SUPPOSED TO MAKE DIMPLES OR TO "NURTURE" THOSE DIMPLES THAT WERE NOT UP TO STANDARD.

window and also contained a snugly fitting cylinder, also with a window (with lower rim sharply toothed) and whose lower edge rested on a spiral spring. The trap was to be baited, as the specifications said, with "any nutritious substance." Then the cylinder with the tooth-edged window was forced down on the spring until the teeth were below the window opening, and it was held in this position by a small stud.

The trap was now ready for use. The tapeworm victim had been instructed to fast for a "suitable duration" before swallowing the trap, the idea being that if no food went down for some hours the tapeworm would become restive and start prowling around seeking what it might devour. The trap was then swallowed, care being taken to keep firm hold of the string. The tapeworm, if it played the game according to Hoyle—or should it be according to Izaac Walton?—was supposed to put its head in the little window and attempt to remove the bait. In so doing, it would disturb the cylinder, so that it would be released from the stud. Immediately the spiral spring would force the toothed cylinder upward, catching the tapeworm by the throat—if a tapeworm has a throat. The patient by this time would be dimly aware that something was going on in the interior and would infer that he had a bite. All that remained was to reel in the trap and bring the astonished and embarrassed parasite into the full glare of day. One must admit that while Dr. Myers might be a little weak in his materia medica he was imbued with the right sporting spirit.

### THE PEDAL CALORIFICATOR

From tenia infestation to cold feet seems a long jump, but this record is chronological. In February 1877 there was granted patent No. 186,962 on an "improvement in footwarmers." The patentee, who had the modern idea in advertising, called his device a "Pedal Calorificator," a name which admittedly has greater sales appeal than mere "footwarmer." The invention was simplicity itself: It consisted of a cupshaped mouthpiece from which dangled two rubber tubes each long enough to reach from the mouth of the user to the feet. The sufferer from frigid pedal extremities was instructed to inhale through his nostrils but to exhale into the mouthpiece and so send his warm breath down to his toes. Every man his own central heating plant!

### THE DIMPLE MACHINE

An invention that fell rather in the field of cosmetology than in that of medicine was patented in the United States in May 1896 (No. 560,351) by a German living in Berlin. It was described as "a device which serves either to produce dimples on the human body or to nurture and maintain dimples already existing." As pictured in the specifications the invention resembled a carpenter's brace and bit. The bit, however, instead of being sharp and pointed had a small rounded knob. There extended also from the brace an extra arm which was adjustable and which carried on its extremity a small roller or cylinder that would rotate. In use, the knob of the center piece was placed on the spot selected for the creation of a dimple—or placed in a dimple already provided by nature, but needing "nurturing"—and the brace was then turned on its axis. Thus the rotating knob was supposed to make a depression that would serve the purpose of a dimple—if a

THE OXYDONOR WAS ADVERTISED TO CURE DISEASES FROM HICCUPS TO HYDROPHOBIA AND FROM TOOTHACHE TO TETANUS.

THE ELECTRIC EXTRACTOR WAS SUPPOSED TO DRAW BODY POISONS DOWN THROUGH THE FEET TO THE COPPER PLATE.

dimple has a purpose—while the small cylinder on the extension, like a tiny roller, would, in the words of the inventor, "mass and make the skin surrounding the spot where the dimple is to be produced, malleable."

### SANCHE'S OXYDONOR

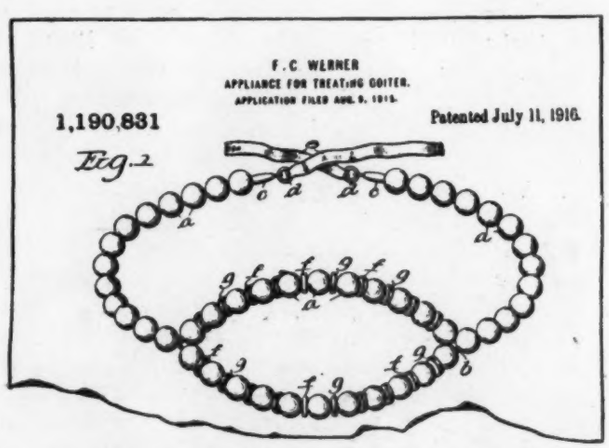
In the field of mechanical quackery, Hercules Sanche was a genius. He first created a theory and then invented a device to take advantage of that theory. His theory was that all ills are due to a lack of sufficient oxygen; his device was supposed to furnish the body with extra oxygen. He called his invention the Oxydonor (oxygen giver) and obtained a patent on it (No. 587,237) issued in 1897. The Oxydonor was a piece of nickel-plated gas-pipe, about 4 inches long and 1 inch thick, closed at both ends and filled with inert material. On one end of the pipe there was a flexible insulated wire, on the free end of which there was a garter-like band that could be attached to the wrist or ankle of the user. In use the Oxydonor was placed in cold water, and the wire was attached to the patient who was then supposed to absorb massive doses of oxygen through the pores of the skin. This, according to Sanche, would result in curing whatever ailed the patient, whether it was softening of the brain or hardening of the liver. While Oxydonors could not have cost more than 25 cents apiece to make in quantities, they sold like the proverbial hot cakes at $35 each. Many imitations flooded the market, some of which also were patented. Sanche sued some of the imitators, but the courts would grant him no relief in equity because he was unable to come into court with clean hands. One of the judges who heard the case declared that Sanche's theory was "a mere pretense . . . put forward as an imaginary hypothesis merely for the purpose of obtaining a patent on a very simple contrivance, which was not patentable unless the claim was reinforced by some such pretended discovery." After the public had been swindled in the sale of Oxydonors for about twenty years, the Post Office Department declared the thing a fraud and its inventor a faker, and closed the mails to both.

### A POISON EXTRACTOR

An invention said to be for the "Electrical Extraction of Poisons from the Human Body" was granted a patent (No. 606,807) in July 1898. It consisted of an electric battery with conducting wires leading to "positive and negative plates," which the specifications showed were applied, respectively, to the back of the patient's neck and to his bare feet. The latter rested on a copper plate which formed the negative electrode and on which, according to the inventor, the poison (if mineral) would be deposited. The inventor claimed further that when the patient suffered from vegetable poisoning a "vegetable receiver" was to be employed instead of the copper plate, while for animal poisons "an animal receiver, such as raw meat" was to be used. The inventor claimed that "when the current is turned on, it will run down from the neck . . . through the patient's body and will pull or draw out the poison at the negative pole and deposit it on the copper plate." From six to eight treatments of a half hour each would, according to the inventor, "generally extract all of the poison of whatever kind it may be."

### A GOITER CURE NECKLACE

A physician in a midwestern state who operated a fraudulent piece of mail order quackery in the goiter cure field, obtained a patent on a necklace that was described as an "appliance for treating goiter." The inventor was the president of the mail order company as well as its manager, director and consulting physician. Those who wrote to the company received a letter from this modern Poo-Bah in his capacity as "Consulting Physician" stating that the enquiry had been referred to him by the company's president. This would seem to be the apotheosis of obeying the injunction to let not one's right hand know what one's left hand doeth!




THIS GOITER CURE NECKLACE HAD ALTERNATE DISKS OF COPPER AND ZINC BETWEEN THE BEADS OF THE FRONT SECTION.

The device was called the Galvano Necklace and was a cheap and tawdry affair of colored beads strung on wire with a double row of beads in front where the necklace was to come over the goiter. The beads in the double row were separated by alternate disks of copper and zinc. With each necklace there came a small jar of ointment containing an iodide; this was to be applied to the goiter before the necklace was put on. The theory was that the copper and zinc disks would set up an electrolytic action which would cause the ointment to be absorbed and cure the goiter. The outfit sold for $7.50, although the necklace, as an adornment, would have found no purchasers even if displayed on the "five-and-ten" counters. Patent No. 1,190,831 was granted to this device in 1916. Fourteen years later, in 1930, the Post Office Department declared the thing a fraud and debarred it from the mails. The Bureau of Standards was asked by the Post Office Department to test the necklace for electrical activity, if any. The bureau reported that when tested with a device so delicate as to record an electric current of one ten-millionth ampere no electric current could be detected!

### A BATH SALT FAT REMOVER

In 1923 patent No. 1,465,530 was granted for a bath salt described in the specifications as an invention that "relates to a composition of matter for producing a medicated bath of particular value in the treatment of obesity." It was also said to be a product that could be counted on to give "a velvety, clear complexion." The stylish-stout who wished to use this product was instructed to fill the tub with water as hot as could be borne, at which time the "composition of matter" was put in the water, and the optimistic overweight got into the tub. She was to stay therein for half an hour, adding hot water at intervals in order to keep the bath as hot as she could bear it. When this product was put on the market under a trade-marked name, no information was given as to the ingredients of the "composition of matter" comprising it. But of course the patent specifications gave the details. Here it was shown that this marvel was composed of 90 parts epsom salt, 5 parts table salt and 2 parts baking soda with enough Canada balsam and oil of pine needles to give the mixture the approved North-woods tang!

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# THE DOCTOR ABROAD

(Continued from page 233)

from the College of France, 5,000 francs, and from private practice from 20,000 to 25,000.

Here also began the famous, and really disgraceful, quarrel with Broussais. Broussais was eight years Laënnec's senior. They had worked together as students under Corvisart, and in those days at the bedside in the wards of La Charité they once had a consultation in which they disagreed on diagnosis. Broussais said the patient had pneumonia; Laënnec said empyema. Broussais reasoned that the fulness noted on one side of the chest was due to pneumonia. Laënnec reasoned that if pneumonia caused a fulness of the chest it would be due to imperfect exhalation and, therefore, not real. Since in this case the fulness was real it must be due to a collection of fluid outside the lung. The outcome was a triumph for Laënnec, but he mentioned the incident in the treatise on auscultation, though omitting the name of Broussais.

Broussais was incensed and wrote eighty pages of denunciation in reply. "What are these tubercles of which Laënnec relates the phases of development, as if he had been inside the lungs of the patient from the time they first appeared?" And again, "This is all that is important for the patient to know, and as to what M. Laënnec has written about black cancers, I may as well say that it is a product of his imagination, a gloomy romance which I find difficulty in reading."

In 1826 the second edition of Laënnec's book was published. It is entirely different from the first edition.

His health had always been poor, and now it broke down completely. Diarrhea, dyspnea, cough and palpitation racked him. He went to Kerlouarnec for a rest, but Aug. 13, 1826, he died there and was buried in the cemetery of the parish church.

It is a pleasant ride from Quimper to Ploare, in the bay of Douarneuenez, site of Laënnec's home, Kerlouarnec, the Home of the Foxes.

In the same year in which the statue at Quimper was unveiled, a house on Rue de la Vielle Cohne was identified as the birthplace, but this was afterward proved to be wrong. The name of the street, however, was changed to Rue Laënnec, which it still bears.

In 1919 the centenary of the publication of "De l' auscultation médiate" was celebrated by a concourse of physicians from all over the world. The statue was fittingly decorated, and speeches were made by Professor Gley of the College of France, Professor Letulle of the Faculty of Medicine of Paris and the late Professor William Sidney Thayer of Johns Hopkins University. The centenary is fully discussed in *La presse médicale* for Dec. 18, 1926.

[NOTE.—In the April issue, Dr. Clendening will describe points of historical medical interest in Holland.]

# NATURE'S G-MEN

## The First of a Series of Articles on the Control of Disease by Harnessing Nature's Living Forces

By GEORGE A. SKINNER

SO MUCH has been written and spoken relative to the destructive results of many of nature's creations that one is sometimes likely to think much more of these destructive forces than of the constructive ones. Certain it is that nature does at times destroy things and that in order to maintain a balance a steady tearing down process is going on in many directions. It is, however, exceedingly interesting to note the various ways in which these destructive and constructive forces act, and usually how nicely they balance. If man is wise enough he may often take advantage of nature's methods, and cause her to help him in some of his difficult problems.

Perhaps no problems of modern life are more intricate and difficult than those that involve the causes of human diseases. Through the more recent years much has been learned of the causes of the various ills that harass mankind, and having learned the causes, we try to discover methods of controlling them. The medical profession has often been severely criticized because it has not been able to control more of the diseases than it has; but if one stops to consider that usually the causes of sickness are not only microscopic and very elusive but some are so minute that no means yet discovered have been able to isolate them, it is remarkable how much has been accomplished in the brief span of years since the birth of the science of bacteriology, not yet a hundred years ago. In fact most of the advances have been made within the memory of men still living. But it may be well to emphasize the fact that science is still far ahead of the people and that much more could be accomplished in the way of preventing infections of various kinds if the population as a whole would allow it. The exact germ that causes smallpox may not be known; but we have an almost perfect protection from this terrible disease, and humanity could practically wipe it out. Yet it continues to exist in almost every one of our cities. The same may be said for diphtheria, typhoid, hydrophobia, tetanus and several other scourges, and to a lesser degree for a much longer list of human maladies. Science is never satisfied with its results, and it is ever striving to discover missing data and to elaborate and improve on the known. Many of the problems now under investigation seem almost insurmountable, and any less persistent searchers than the scientific investigators would long ago have been discouraged. It is for these reasons that a brief survey is here presented of how some of nature's own forces may normally act to protect us, and how we have taken Mother Nature for an instructor and sometimes even improved on her methods to make our own lives safer and pleasanter. In the visible world about us we may see these processes if we know where to look for them, and in the world we ordinarily call invisible, that is, the world revealed by the microscope, we find many other fascinating dramas being enacted.

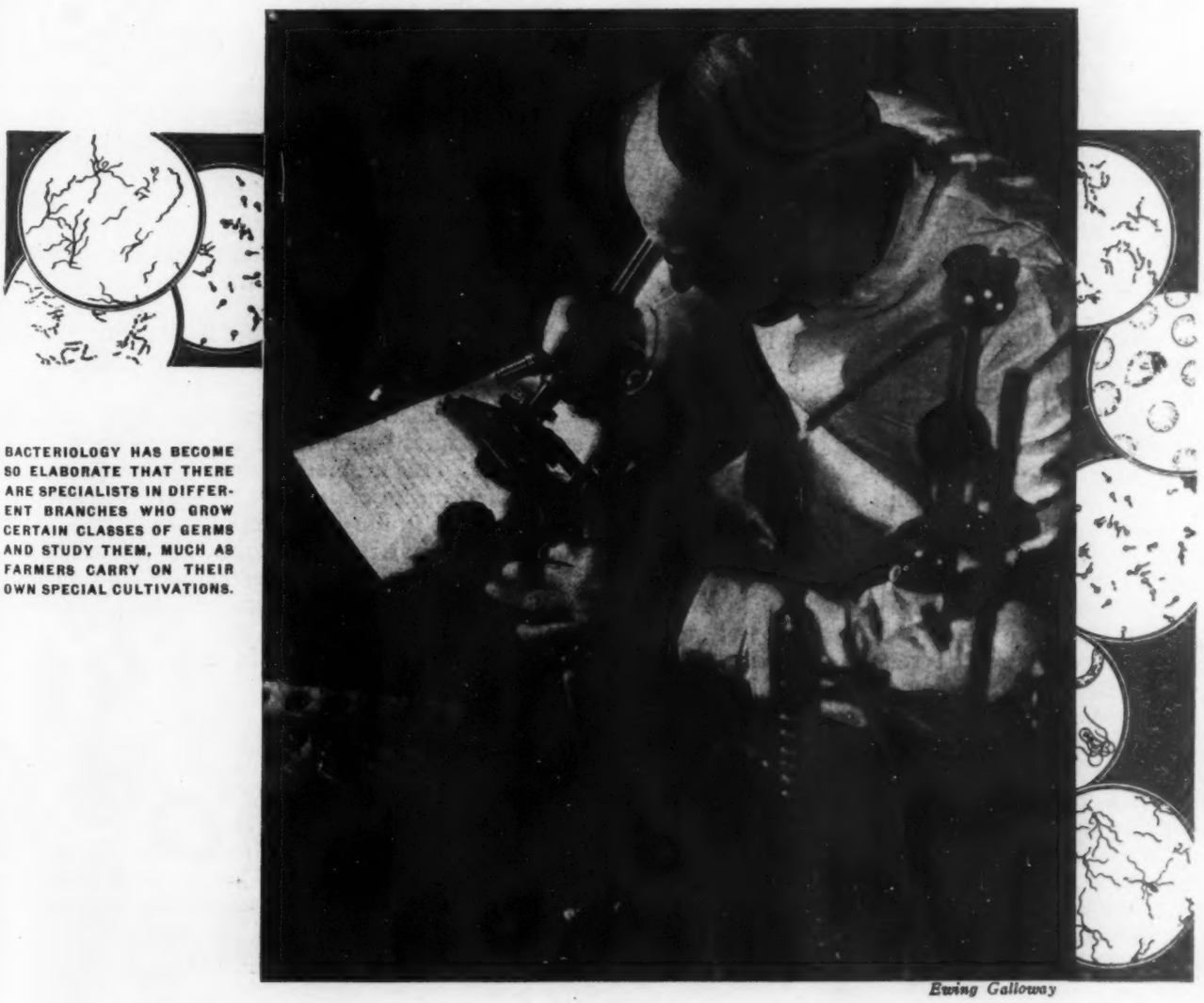
While some of the facts of bacteriology have been known for about two centuries, most of the real science of bacteriology has developed since about 1880. In any modern medical library there is usually a large section devoted to bacteriology, and one can but marvel at the industry of the workers, that in so few years they have been able to produce voluminous and accurate data on so many subjects. Indeed, the science has become so elaborate that there are specialists in different branches who grow certain classes of germs and study them, much as farmers carry on their special cultivations. But most of these details were not even known early in this century, and after many details had been worked out, and bacteriologists were fairly certain of the methods of growing and identifying various bacteria, certain things began to happen in the cultures that were supposed to be "pure"; that is, certain germs had been grown until no other germs appeared among them, and the strains were apparently as well established as breeds of cattle or dogs.

THE manner of growth of bacteria is as definite to the trained eye of the bacteriologist as is the growth of apples or pears to the orchardist. When the growth began to be disturbed, and the little pearly globes or disks became ragged and dull looking, the bacteriologists were puzzled and upset. Then whole sections of their bacterial gardens would disappear, as though moles or other pests had gotten in and destroyed them. Breeding technic had been developed to a perfection that left little to be desired in the way of protecting these little "gardens" from weeds; yet here were the results right before their own

eyes. Like true scientists they started in to find out what was wrong. As frequently happens under such conditions, two observers arrived at the same results at about the same time and decided that there was something else in the cultures which they had not been able to see but which was destroying the germs. Experiments of various kinds over a long period were necessary to confirm this belief; and as more knowledge and data gradually accumulated, it was found that each variety of germ seemed to have its own enemy, which had no effect on any but its respective host. As this process seemed to be a demonstration of the old saying, "every bug has a smaller bug to bite him," this unknown substance was called bacteriophage, which means a bacteria eater. Although bacteriologists of all lands have contributed to the knowledge of the bacteriophage, it was largely due to the skill and persistence of a Frenchman named d'Herelle that the early work attracted attention.

This marvelous scientific work has developed the fact that the bacteriophage works under certain definite laws, many of which are now known. While it is so minute that no microscope or ultramicroscope has yet revealed it, these scientific sleuths have discovered its habits and methods of procedure to such an extent that they can trail it and generally control its actions. They make it grow and can separate the various strains quite accurately. They can produce large quantities of it at will, not by being able to see what they are doing but by removing everything else from certain visible growths through the use of fine filters, until only the bacteriophage is left.

INVESTIGATORS who have the divine spark of intellectual curiosity for a knowledge of the unknown, whether or not it seems at the time to have any "practical" value, often make some of the most important discoveries. When such a discovery is made, as was the case with the bacteriophage, the discoverer often turns his facts over to the man who is applying discoveries to practical fields to see what can be made of it. The idea of destroying germs of disease by nature's own method was exceedingly attractive; but it was perhaps too enthusiastically received, and too much was expected of it. It was tried on all sorts and conditions



BACTERIOLOGY HAS BECOME SO ELABORATE THAT THERE ARE SPECIALISTS IN DIFFERENT BRANCHES WHO GROW CERTAIN CLASSES OF GERMS AND STUDY THEM, MUCH AS FARMERS CARRY ON THEIR OWN SPECIAL CULTIVATIONS.

*Ewing Galloway*

of human ailments and naturally failed to meet the expectations of some of the observers. Rarely does any new product fill all the claims at first made for it. But as further observation and experience were accumulated, its uses and limitations were fairly determined.

Bacteriophage has been used in the treatment of various infections for some years, and observers differ in their estimation of its value. But there is a general agreement that it is of great use in inflammatory conditions of the skin, even in some skin infections that have been regarded as chronic and exceedingly unresponsive to other methods of treatment. The work on this interesting substance is going forward under the careful observation of many scientists, and interesting developments may yet be expected from this invisible G-man.

In human society it is sometimes necessary to take the enemies of society out of circulation and confine them at hard labor in order to protect society from the evil consequences of perverted intellects. Sometimes also these enemies of society are put to productive work, and as long as they are watched and controlled they become of real use again. So it is with another type of micro-organism that has been made to work for human betterment.

It is not many years since a disease known as paresis, a syphilitic involvement of the central nervous system, was regarded as totally hopeless. Even the modern treatment of this disease, which had been so successful in other forms of this disastrous infection, had until recently failed to exert any favorable influence in the great majority of these cases. It was generally expected that the victims would gradually deteriorate both mentally and physically until death mercifully closed the tragedy. In some cases there were quite long periods when the disease seemed to advance only slowly or to remain stationary.

In 1887 a Viennese doctor named Wagner-Jauregg had observed that in cases of paresis in which an intercurrent fever had occurred improvement was apparent after the fever had subsided. After some years he tried experimentally to see whether he could reproduce such results. At first he used "old tuberculin," which Koch had developed for the treatment of tuberculosis, and the results seemed favorable. Then he tried a typhoid vaccine, which may produce fever, and this also seemed to be of some value; but both lacked something, in his opinion, and the real infection causing the fever seemed to be necessary. He accordingly started using the tertian malarial parasite about 1917, bringing results which were quite surprising. This work went on until about 1922, when 200 patients had been treated long enough to determine the results, and some 23 per cent of them were so much improved that they were able to resume their normal occupations. It was then taken up quite widely, and many clinics used this method of treatment. Late reports indicate that about 48 per cent show good remissions, and that approximately an additional 25 per cent are distinctly benefited.

This form of treatment is neither pleasant nor free from danger; but when one considers that up to the time it was developed the disease was practically 100 per cent fatal this has been a really startling advance in the method of handling such cases. Better methods may be developed later, but this one still appears to be of the most value. In it one of the worst enemies of civilization has been put to work in assisting in the arrest, if not the cure, of a previously incurable disease and so has become at least an assistant to nature's G-men.

That the common house fly is one of the serious health menaces is now generally recognized. Many methods of fly destruction have been developed, and while the number of flies has been materially reduced where adequate measures have been instituted and maintained, any rest in the fight will promptly result in the presence of untold numbers of the pest in a few days. It has also been noted that at some times of the year, and especially during certain years, there were either many more or many less than the average number of flies, and this caused some of these curious scientists to wonder. During the time when flies were below normal in numbers, a good many were found to be sluggish and easily caught. So it was reasonable to suppose they were suffering from some form of fly disease. This was curious and interesting enough to investigate; in due time it was found that a fungus growth lived on these flies; and as this growth proceeded, the fly was destroyed. If the fungus was abundant millions of flies were killed.

A similar disease destroys many other insects, such as grasshoppers and other consumers of our food. This method of destroying insects has been tried on an experimental scale but has not yet reached important proportions. It is easy to imagine that if there could be introduced a disease which would be destructive among flies and at the same time harmless to all else, it would be a great help in the control of these filthy pests. And no one is willing to say that it cannot be done.

Nature's G-men are all about us. Some we know about, and many more we probably have not yet even suspected. As we learn more about the possibilities of utilizing the mysterious and powerful forces about us, it may be that many of the maladies now regarded as chronic or incurable will yield to treatment, and humanity will be much happier from the help given by these tiny workers.

*(To be continued)*

# We Forecast Showers for April—

## Showers of Advice and Good Counsel for Those Who Would Let Health and HYGEIA Reign

❖ ❖ ❖

For those who discover they have taken the path of least weight resistance: Would you reduce? Will those frocks you wore with such pride last spring and summer appear with the same good fit this coming season? *Dr. Maurice Hardgrove* will properly instruct you on that all-important question, "How to Reduce," in the forthcoming issue.

For those who would avoid obesity with its attendant ills and sorrows: You may spare your pocketbook and improve your health by riding to work or school every day—no, not in an automobile—but on a bicycle! Exercise as an elementary rule for the maintenance of good health is advocated by *Dr. Paul Dudley White* in "Walking and Cycling in Daily Life."

When science prolongs the natural span of life, something must be done to prolong the natural virility of the mind. In "Growing Old Gracefully," *Dr. Clarence W. Lieb* indicates fortifications for old age. He declares that prejudices are to the mind of the aged what stiffness is to the muscles and poor circulation is to the heart.

The serious need for a wider scope of tuberculosis testing and examination among school children is brought forcibly to your attention by *Ann Hollinshead* in "Trustees of Posterity?" A number of unsuspected cases of tuberculosis were turned up when the entire enrolment of the school which her own daughter attended was examined. Are your children likewise being exposed without the proper safeguard?

And here is counsel for the housewife dietitian whose daily struggle with the bars and limitations of a soft diet are a tax on her patience and ingenuity. *Harriet Acheson's* "Wheezles Are on the Way" gives recipes and menu combinations that are different and yet easy to prepare. She again proves that old adage, "Iron bars do not a prison make"—nor a diet break, we add.

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# MISS FANNY'S TEA ROOM

(Continued from page 228)

MABEL: Why, Miss Fanny, he actually put meat and eggs in the same meal with potatoes and beets—

MISS FANNY: And why not?

MABEL: With your reputation, don't tell me you don't know that proteins and carbohydrates should *never* be served together!

MISS FANNY *(emphatically):* I certainly don't know it!

GEORGE: There! What did I tell you, Mabel?

MISS FANNY: Eggs contain both protein and carbohydrate, Mrs. Dawson. So does milk, and so do many vegetables and dozens of good foods.

MABEL: I can't believe that. Why, I read in a book just the other day—

GEORGE: Say, I want to eat! *(To Ellen)* Take the order to the kitchen—she won't change her mind!

*(Exit* ELLEN.*)*

MISS FANNY: Mrs. Dawson, won't you let me get you some vegetable soup? I'm sure it will make you feel much better.

MABEL: No—no, thank you. I know you mean well. But I have done a great deal of reading on the subject of diet.

(MISS FANNY *smiles and exits left.*)

GEORGE: Too much if you ask me!

MABEL *(acidly):* I didn't. Instead of being proud that I try to keep up to date, you ridicule me—in public, too. *(Starts to cry.)*

*(Enter* ELLEN *with dessert for the Cunninghams.)*

*(Enter* MR. *and* MRS. VANCE. *It is apparent she is pleased with herself, and she looks about her to see how many people are looking her way. She is gratified to find the Cunninghams and the Dawsons are; both she and* MR. VANCE *bow a greeting to both families.* MR. COLE *watches them, but with special interest when* DR. MACON *enters.)*

MRS. VANCE *(in a loud, affected voice):* Now, *where* can Miss Fanny be? This table will do nicely. *(Goes to large table above center stage.)* Please sit there, Dr. Macon. *(She seats herself, with* DR. MACON *on her left and* MR. VANCE *on her* *(Continued on page 278)*

# Moral Codes and Health

By
Calvin T. Ryan

"BUT EMERSON wouldn't even eat a cherry between meals, according to one story I read about him."

"And Benjamin Franklin was very careful about his manner of living. I believe great men and women always pay attention to their health."

"I like this quotation I found in one of my books. 'The excesses of youth are drafts upon our old age, payable with interest about thirty years from date.' It is from C. C. Colton."

The discussion was in a junior high school class of boys and girls. The subject was "Good Health and Good Citizenship." The students had been studying the Hutchins Code and the Collier Moral Code for Youth. The teacher's aim was to tie up or correlate hygienic habits with citizenship. They had used the general theme in their oral and written English. It had been a part of their geography and their history lessons.

These children were not getting moral and physical training by that dubious route of the lecture system or by that more futile route of fact gathering and fact learning only. For, as Dr. Alexis Carrell points out in "Man, the Unknown," one doesn't acquire attitudes and ideals by the lecture method.

There are at least forty organizations of national scope which have for their purpose the development of character. The organization and administration, the philosophy and the procedure of these groups are different; but the one general aim of character development runs through all. Some of them are definitely restricted to certain age-grade levels. Some are intended for the school alone, while others reach out and beyond the school.

Either directly or indirectly health education in some form appears in most of the codes and in all those intended for schools. Being a good citizen means something more than being a 100 per cent American. Being a good citizen, judging from the aims and purposes of these codes, means having one's character developed. It means also having at least positive health habits.

In my school days we committed to memory the number of bones and muscles in the body, attempted to draw the skeleton and read more or less about the evil effects of alcohol on the stomach; that is, we studied about health by a sort of remote control, once removed from any tangible knowledge. The approach was wholly intellectual, and so it never "took." Knowing the number of bones in the body and some of their scientific names will do but little toward the development of health knowledge or health habits. The whole study of physiology was in a vacuum, and of course it did but little good.

What is more, not only was the study unpedagogic, it was casual. No one seemed to have better health as a result of the study. No one seemed to suffer any more from not having studied it.

COMPARE that attitude with that of the revised course of study of the New York state secondary schools. There one of the three core subjects that must be taken by all pupils during their six years is health and physical education. The other two are English and the social studies.

Compare also the methodology of the present with the past. Then physiology was studied as an isolated subject. Today it is a part of many projects. English becomes a tool subject by which the pupils express themselves about health. It appears in the social science groups. It is a part of the extracurricular work of the school.

To tell the child that he doesn't have rosy cheeks because, since he sleeps with his window closed, the little Fairy Good Health cannot come in and kiss him, is useless and may even be harmful. The modern lad may get a false notion of health from such a fiction. What he will come to think of those who try to teach him such fictions will not be complimentary.

The Santa Claus fiction probably does much good, certainly more good than harm. Belief in fairies has its pleasures, and in the spiritual world such a belief is constructive. However, to use either of these fictions for such a practical or utilitarian purpose as that of teaching the child the right attitude toward health is to remove the fiction from its rightful place in the child's life. It may even give him a false foundation on which to build his health attitudes.

On the other hand, there is a rightful use of the imagination in teaching health. Some of the books now being used are realistic in their

# Habits

THE LAW OF HEALTH

approach; yet they appeal to the child through his imagination. It is commendable to instruct the child concerning his teeth in language and pictures that he can comprehend. Many of the realistic games that have for their purpose an overt stress on health make their appeal because they are in a language and in an experience of the child world. The hygienic habits thus acquired are acquired under conditions that are pleasurable; hence they have a tendency to become fixed.

Emotional direction, expressed in mind sets and attitudes, is of equal importance in education with fact gathering or problem solving, and some educators believe it is of greater importance. Here stories, games and class discussions come in conveniently. Jane Carlyle was so influenced by her love of the Romans, about whom she had read in poetry and drama, that they became for her an ideal. Shirley Temple's daily routine has influenced the routine of many other little girls of her age. Because every boy at a given age will accept as his hero some one he admires, manufacturers of breakfast foods play up Babe Ruth, Red Grange or some of the other popular heroes of the sports world. The setting up of a definite goal to be reached has its place in the teaching of character formation and likewise in the acquisition of health habits. The code of a given group appeals to each child and becomes for him a goal of achievement. It teaches because it is in keeping with child nature.

THE problems of health facing our schools and our school children are in their final analysis simply those of citizenship. They embody individual initiative, cooperation and unselfishness. While there will always be a place for the specialist and the expert in our health education program, we must not come to rely too much on him. The child must learn that he owes it to himself and to society to retain his health. One of the requisites of good citizenship is a willingness to live within the law; and that includes more than merely living within the law as it is enforced by the police; it means also living within that law which makes it possible for us to be happy, self supporting human beings, not simply not sick, but wholly well and happy. The specialist will not keep us within that law unless we know enough to follow his advice.

Dr. Alexis Carrell thinks the child absorbs a vast amount of knowledge unconsciously. Part of this information comes from his reading, whether it is done voluntarily or involuntarily. Attitudes are in this manner acquired; so are ideals. We do not give them to our children. What we can do is to shape their environment so that they will absorb that which is helpful. Good health attitudes and habits must become a part of the child's daily experiences. The child tends to repeat that which gives him pleasure, or what is associated with a pleasurable experience. Hence the story involving strength, endurance, cleanliness of mind and body tends to give the child unconsciously a behavior pattern.

Just as our schools are teaching through the story, through the picture and through poetry the biologic, physical and social sciences, so may they teach health. Children's literature means literature intended for children's recreatory reading, but it includes also their informational reading. The joy of it is that the line of demarcation between the two is thin indeed. The Petershams' story book series on food, houses, clothes and so forth, as well as Schmidt's "Homes and Habits of Wild Animals" and Boulton's "Traveling with the Birds" are scientifically sound in their content but none the less interesting.

The studies in conduct used in many of our schools is the introduction of the case method among those whose minds are yet open and ready to grasp, to see and to think. In story, drama and poetry, high school boys and girls are given health problems to consider. The point of the story is driven home through the imagination. The child receives it through the one source that is sure to go home to him.

The codes set forth certain ideals of attainment. The story, play or song gives the children the code in action. From this story, play or song numerous other kindred problems arise. The students see how the code works out in real life.

In 1916 the Hutchins Code, written by William J. Hutchins, president of Berea College in Kentucky, was awarded the prize offered by the Character Education Institute, Washington, D. C., as the best children's code of morals submitted in the nation-wide contest. The first section reads:

> Boys and girls who are good Americans try to become strong and useful, that our country may become ever greater and better. Therefore they obey the laws of right living which the best Americans have always obeyed.
>
> I. The Law of Health
> The Good American Tries to Gain and to Keep Perfect Health
>
> The welfare of our country depends upon those who try to be physically fit for their daily work. Therefore:
>
> 1. I will keep my clothes, my body, and my mind clean.
> 2. I will avoid those habits which would harm me, and will make and never break those habits which will help me.
> 3. I will try to take such food, sleep, and exercise as will keep me in perfect health.

Here the student thinks in terms of a good citizen, the good American citizen. Such a person must so live that he will have good health. Not personal hygiene alone is considered, but the home and the community are also involved. The home, the school and the state must work together to make it possible to have better and happier citizens. The threefold program of the school work in education should be as follows: first, the acquisition of hygienic knowledge, and this should be begun in the primary and intermediate grades; second, the gaining of health attitudes, and third, a chance to practice the habits to be formed.

The mere practicing of the habit is not enough. Habits to be effective must consider the attitude of the learner. "Practice with satisfaction builds," says William H. Kilpatrick, "but practice with annoyance tears down." The concomitant learning, that is, the attitude of the learner in this case, may be more important than the thing learned.

Here, it seems to me, is where the code and the attendant stories and plays get in their good work. They give the learner something to work for. They hold up before him an ideal, a goal which he can reach and have certain satisfactions in reaching. The appeal is through the imagination.

In the Collier Moral Code for Youth, first published in *Collier's* Magazine, Jan. 17, 1925, the matter of health does not come first; but all those parts preceding it are more or less connected with what we think of as mental and moral health. For instance, there are Wisdom, Industry and Good Habits, Knowledge and Usefulness; then come Healthfulness and Cleanliness. In detail the part reads:

> I must make my body strong—My eyes, my teeth, my heart, my whole body must be healthful, so that my mind can work properly. I must keep physically and morally clean.

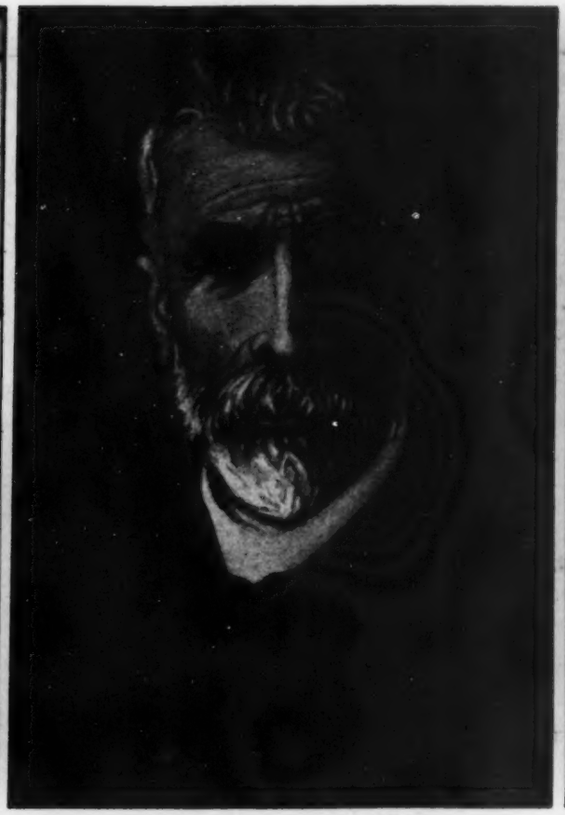
Here is a recognition of the total body activity, the interrelationship of body and mind. Among the quotations given in the class to which I referred at the opening of this article was one from Rumford, which read as follows:

> So great is the effect of cleanliness, that it reaches even to the moral character. Virtue never dwells long with filth; nor do I believe there was ever a person who was greatly attentive to cleanliness who was wholly bad.

The duty of parents and teachers is to guide and direct the development of the child's character. Teaching is a guiding of forces rather than a compelling of the mass to take a certain shape. The child's environment has an influence on his development, including his mind as well as his character. These things being true, we must use our knowledge of how the child learns; we must do something toward shaping the environment that he is to absorb. The child seems innately to desire to conform to the group about him. Codes and organizations give him a group with the same ideals and attitudes. If a part of the code to be observed throws overt stress on health, then the child is going to be rightly influenced in the formation of his health habits. If these are in turn inextricably bound up with good citizenship, with being a good American, then the child is having his conduct shaped constructively and wisely.

HIGHLY MAGNIFIED DIPHTHERIA BACILLI, SHOWING VARIOUS FORMS. THE NAME OF ROUX WILL BE PERPETUATED FOR HIS DISCOVERY OF A SAFE WAY TO COMBAT THE POISON WHICH THESE BACILLI ELABORATE IN A PATIENT AFFLICTED WITH DIPHTHERIA.

ROUX DISCOVERED A CURE FOR ANTHRAX IN SHEEP AND PLEUROPNEUMONIA IN CATTLE.



BENEFACTORS OF MAN

ROUX FOUND THE HORSE A SUITABLE ANIMAL FROM WHICH TO MAKE A SAFE DIPHTHERIA ANTITOXIN FOR HUMAN USE.

# PIERRE PAUL EMILE ROUX

(1853-1933)

## A Brilliant Bacteriologist and Pioneer in Serum Therapy Who Banished Death from Diphtheria

### By ADOLPH BEILIN

DESPITE THE fact that Emile Roux suffered from pulmonary tuberculosis throughout his lifetime, he waged a ceaseless war against human and animal diseases. He opened previously impassable therapeutic roads, established new guideposts and pressed the frontiers of medicine immeasurably forward.

Roux was born at Confolens, France, Dec. 17, 1853. He began his early medical training at the University of Clermont-Ferrand in Amergne, where among other subjects he studied biologic chemistry under Professor Duclaux. After writing his doctor's thesis, Roux accompanied Duclaux to Paris, where he continued his studies at the hospital l' Hôtel-Dieu and the military hospital of Val-de-Grace. On the recommendation of Duclaux, Roux next became a laboratory assistant of Pasteur, with whom he was closely associated in researches on an almost infinite variety of problems from 1878 until Pasteur's death in 1895. Roux never permanently left the Pasteur laboratory. Only a few of his best known researches can be briefly referred to here: He discovered diphtheria toxin, or poison, and he worked out the etiology and treatment of anthrax, hydrophobia, tetanus, syphilis, cholera and diphtheria. He devised a serum for chicken cholera and a treatment for pleuropneumonia of cattle. But his main achievement was his discovery of an antidiphtheric serum, for which he shared the Nobel prize with Behring.

Roux's investigations into the nature of the toxin that the diphtheria bacilli elaborate led to Behring's discovery of antitoxin. But the serum which Behring invented was not suitable for human use, and it devolved on Roux to explore the therapeutic possibilities of antitoxin. It was Roux who found the horse a suitable animal to provide an antitoxin safe enough for use on human beings, and it was Roux who worked out the mode of preparation and the dosage of the new remedy. Basing his conclusions on the observation of 300 diphtheria cases in the wards of a children's hospital in Paris, Roux proved the value of his antitoxin

both as a prophylactic and as a remedy. Prior to Roux's discovery of a safe antitoxin many thousands of babies and children the world over were annually choked to death by this dread malady. Today, thanks to Roux, diphtheria is no longer the murderer that it was for ages.

Diphtheria antitoxin was first placed on the market in 1892. It is now conceded that all modern serum treatment originated from Roux's classic work on microbic toxins and that his researches led to a fuller understanding of many previously obscure germ diseases. Not only did Roux demonstrate that the diphtheria bacillus elaborates a deadly poison, but he was the first to separate this poison from the living germ by filtration through unglazed porcelain.

Roux set a standard of self effacement of which few great men are capable. He did not attach any importance to honors, medals or decorations, and the salary he accepted as director of the Pasteur Institute was smaller than that of the humblest worker. His kindness was unlimited, and he shared the joys and sorrows of all his co-workers at the institute. He never married. He devoted all his energies to the eradication of epidemics and bacterial diseases. His death, Nov. 3, 1933, brought to a close a frail but highly fruitful life.

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# HEALTHGRAMS ✣ from Articles in This Issue

¶Our country can probably boast of no more courageous a set of heroes than her gallant men who bend over her laboratory test tubes; the sword of science is at constant duel with the physical demons that plague mankind.

*See page 234*

¶Little things can determine another's opinion of you: the way you do your hair, the tone of your voice, your dress and—the way you walk.

*See page 208*

¶Vivisection as practiced by those who are spending their lives in the service of humanity is not unethical, i. e., is not against right reason —or immoral, i. e., contrary to the laws of Providence and of nature. *See page 210*

¶The control of syphilis and gonorrhea, the two most important social diseases, can be brought about by earlier and better education concerning their nature, their prevention, earlier diagnosis and facilities for continued, adequate treatment. *See page 216*

¶The cultivation of an avocation or a hobby is just as important if not more important than the mere acquisition of knowledge.

*See page 267*

¶Workmen have to change occupations sometimes, not because of a fault in the job itself, but rather because there is something about the work being done that is poisonous to the workman. *See page 260*

¶Laws are for protection, for ourselves and for other people; to be a success as a citizen, we must each one respect our fellow man's rights, and we should obey and keep the laws as long as they are laws. *See page 264*

¶Science is never satisfied with its results, and it is ever striving to discover missing data and to elaborate and improve on the known.

*See page 242*

¶If we are to make any progress in highway safety, we can no longer permit any and every one who may so wish to take a car on the road.

*See page 213*

¶Great strides have been made with the available weapons against disease, but until they are put to a full use, unnecessary deaths will continue. *See page 205*

¶There is always a certain amount of communicable disease lurking in a community; thus disaster conditions, such as are in the currently flooded areas, throw the door wide open for its spread. *See page 200*

¶It was Sydenham who pointed out that there was not only one disease with different symptoms, as the older masters thought, but that there were separate maladies, each with its own natural history. *See page 230*

¶There is no royal road to reconstruction for a failing heart; but by knowledge and perseverance, interest can be stimulated in something which will often successfully restore a person to usefulness and rescue him from invalidism.

*See page 220*

¶In arthritis, heavy massage and vigorous stretching and pulling of joints are absolutely harmful and should never be done.

*See page 252*

¶The problems of health facing our schools and our school children are in their final analysis simply those of citizenship. *See page 246*

# Wherever You Are at Easter-Time—

IF IN BERMUDA YOU WOULD BE PARTICIPATING IN THE WHITE HARVEST OF LILIES.

*Philip D. Gendreau*

*Century-Allen*

IN THE MIDDLEWEST YOU MIGHT BE POSING FOR YOUR PICTURE, LIKE THIS LITTLE BOY, AMID EASTER'S BROOD OF CHICKS.

IN NEW ENGLAND, SAP IS BEING COLLECTED FROM THE STALWART MAPLE TO BE CONVERTED INTO DELICIOUS SYRUP AND SUGAR.

*Philip D. Gendreau*

# Physical Treatment of Arthritis

**The medical profession is now able to offer successful aid to the rheumatic person in every stage of his disease**

By RICHARD KOVÁCS

THE COMBATING of arthritis and other "rheumatic" conditions is one of the great problems in medicine today. It has been estimated that rheumatism causes more prolonged disability and economic loss than any other disease, including tuberculosis. The wretched sufferer from rheumatism makes no dramatic appeal as does the victim of cancer or tuberculosis, and in consequence comparatively little organized medical and social provision for continued help is available in this field. Many of those afflicted may miss their chances to become cured in the early, noncrippling stage of their disease because they are unable to provide long and expensive treatment out of their own limited income.

There are some differences of opinion among medical men regarding the origin and treatment of rheumatic conditions. It is no wonder, therefore, that bewilderment prevails among laymen. Almost every patient suffering from chronic arthritis or inflammation of the joints looks for some one drug, vaccine, diet or other method of treatment that will be the magic wand for a cure. Everything from fallen arches to acid fruits, bad teeth and a poor colon has been accused of causing arthritis, and much energy has been dissipated in seeking the "bug" responsible for this disease.

Intensive study in recent years by competent physicians all over the world has gone far toward clearing up this problem. While the term "arthritis" is used principally to indicate inflammatory changes in one or more joints in the body, medical men have learned to regard it as a disease of the entire organism. Chronic arthritis and similar rheumatic changes in muscles, nerves and other parts may be caused by a "low grade" infection existing somewhere in the body; in other cases abnormal changes in the chemistry of the body in turn affect the joints; in still others the disease may be directly related to injury or exposure to cold or dampness. These causes are especially apt to bring about rheumatic conditions in persons who have a hereditary tendency or who show what medical men call a weakness of their body constitution. Corresponding to the variety of causes there are various forms of arthritis.

The outlook for the successful treatment in arthritis is much brighter than it was a few years ago. The best chance for a cure exists when the first hint of the disease appears, such as aching or pain in the neck, or a stiffness, pain or swelling in or near one or more joints. This is the time when the physician will make a survey of the past history, manner of life and the entire physical condition of his patient. On the basis of an accurate diagnosis, treatment is instituted with a twofold aim. The first is the removal of the causes by treating the general body weakness or disability and any infection, repeated strain or exposure which may be responsible for the onset of the disease. The second aim is the prevention and relief of the crippling process, the pain and stiffness in joints and the weakness of muscles.

In order to treat arthritis effectively, experienced physicians make use of all known treatment measures which overcome the causes and act directly on the diseased parts. Drugs, vaccines, physical treatment, diet and general hygiene all play an important part in treatment. No experienced physician will restrict himself to only one treatment method for arthritis. Sufferers from this malady will get along best when their treatment is individually selected and coordinated according to the type and the stage of their disease.

Physical treatment of chronic arthritis includes heat, massage, sunlight, exercise and rest, which may be collectively described as "natural" or "physical" forces. They may serve to stimulate the defensive power of the body through speeding up the general circulation and causing chemical changes in the blood. This action is similar to the injection of various vaccines, none of which has in fact any specific curative effect.

THE POPULARITY OF THE ANCIENT ROMAN BATHS WAS PROBABLY DUE IN PART TO THE FACT THAT HEAT FEELS SO GRATEFUL TO SUFFERERS OF RHEUMATIC SYMPTOMS.

Physical measures may also exert a general tonic effect by strengthening the musculature, correcting faulty posture of the body or promoting the functioning of the digestive tract. They are furthermore of the greatest importance in relieving pain and overcoming swelling and stiffness of the affected joints.

Heat is the most valuable and most widely applicable physical treatment force. The fact that heat feels so grateful to those suffering from rheumatic symptoms accounts for its early use by the ancients who became pilgrims to naturally occurring hot springs in various parts of the world. Modern investigation has shown that the circulation in the skin is poor in arthritic patients; hence their instinctive preference for warm coverings and warm climates. A hot bath is the simplest and most useful physical measure for home treatment of arthritis; it increases the circulation of the skin and adjoining parts, promoting the elimination of waste products, and it also relieves the pain and swelling in the affected joints and muscles. It should be applied at a temperature of 98 or 99 F., gradually increased to 102 F. The hot bath should be given two or three times a week, advancing in duration from five minutes to half an hour. Among institutional methods for heating the entire body are electric light baths and sweat cabinets. A newer, much more powerful method has been introduced to cause real fever heat by short wave apparatus or hot air cabinets. Such artificial fever treatment has proved remarkably successful in cases of arthritis which are due to gonorrheal infection.

Simple heat lamps and electric bakers are effective for giving relief to arthritic joints. They may be applied at home for half an hour or longer twice a day from a distance that will make them feel just comfortably warm. In sum-

mer, exposure to the warm rays of the sun is excellent for the joints as well as for the whole body.

With every heat treatment, no matter from what source, there is the ever present danger of burns due to unskilled application or to special sensitivity. Therefore the preliminary advice of a trained physician is essential. Mild heating agrees with almost every rheumatic patient, but many react badly to excessive heating.

UNDER the name of diathermy and short wave diathermy there has been developed in recent years a more penetrating form of heating by a high frequency electric current. This treatment, when properly employed in physicians' offices or in hospitals, gives good results, especially in arthritis following injuries and in the type of cases that occur in one or two of the larger joints of robust, middle-aged persons. It is regrettable that unscrupulous sales concerns and self styled treatment "institutes" commercially exploit diathermy for home use. Unfortunate sufferers in advanced stages of arthritis and deluded persons with undiagnosed symptoms of some other disease are led to believe that by investing a hundred dollars or more for a flimsily made electrical contraption costing less than $15 to assemble, they can successfully treat themselves. No layman or paid agent of a business can decide honestly whether in a given disease condition it is necessary or safe to use diathermy. The majority of the people inveigled into the purchase of such blatantly advertised apparatus would have gotten better at much less expense with simpler heat measures such as lamps or baths. Some persons have been made worse by self administered diathermy treatments; some have been burned, and some have been prevented from receiving proper treatment when it still could have helped.

Massage and gentle manipulation form another important physical measure in the treatment of arthritis. If applied by skilled hands they will be helpful in limbering up stiff joints and in allaying pain in rheumatic joints. Massage should always be preceded by some form of heat treatment. When there is considerable soreness in the part, exercises may be carried on more comfortably in a hot bath. In some cases, members of the family can be taught to apply daily massage gently at home, but the patient should never massage himself. Every rheumatic patient should do a certain amount of exercising as taught by his physician; this will strengthen weak muscles and parts and prevent further crippling. In arthritis, heavy massage and vigorous stretching and pulling of joints are absolutely harmful and should never be done. In some of the health resorts and in hospitals, massaging is administered through fine or heavy streams of hot water. In the so-called whirlpool baths an immersed leg or arm receives mild massage by hot water which is kept in a whirl by a motor or by its own pressure.

In addition to these measures certain forms of electricity serve to bring about gentle muscular contractions and the strengthening of weak muscles by such painless exercises. The galvanic current may be employed in certain cases to introduce remedial drugs through the skin which dilate the blood vessels and stimulate the skin circulation. Colonic irrigations may be helpful in cases in which there is definite trouble with the intestinal tract.

A few weeks' stay at a spa or health resort is eminently beneficial to many sufferers from arthritis; for besides the desirable mental and physical rest in pleasant surroundings, it affords the combination of physical and medical measures, hygiene and diet.

It is evident that in spite of the number of effective physical methods available, no sick person can decide for himself what form of treatment will be most suitable for his condition. This is always up to his physician. To accomplish the best possible results, in most cases of arthritis treatment must be given for a definite length of time. Periodic x-ray examinations and laboratory tests are essential to check up on progress. In London there exists a special British Red Cross Society Clinic for Rheumatism established on the recommendation of the British Committee on Rheumatism. This clinic treats patients by all recognized methods but places special emphasis on physical treatment. It reports that of 2,314 patients discharged in 1935 with treatment completed, 51 per cent were cured or free from symptoms; 35 per cent showed definite improvement; 13 per cent were unchanged or only slightly improved, and less than 1 per cent were worse. The definite improvement shown in 86 per cent of the cases corroborates the fact that the average expectation for full recovery in arthritis under appropriate treatment is good.

I MUST emphasize again that the employment of physical treatment methods in arthritis under proper direction goes hand in hand with all other forms of treatment. The chief consideration is that any combination of treatments should be given according to a well conceived plan and should be carried out conscientiously for a definite time. A cheerful outlook is an important necessity in arthritis. It can be safely said that the large majority of persons with arthritis need have no fear of any serious stiffness; and therefore they should never become unduly worried when, in spite of treatment, they suffer from occasional attacks of pain. The medical profession knows enough about arthritis now to be able successfully to help the rheumatic person in every stage of his disease.

## The American Medical Association Is on the Air

**LADIES AND GENTLEMEN**

# YOUR HEALTH—

**DRAMA BY RADIO**

**March 2**
THIS CREDULOUS WORLD. P. A. TESCHNER, M.D.

**March 9**
SCARLET FEVER. W. W. BAUER, M.D.

**March 16**
DON'T DIE OF DIABETES. MORRIS FISHBEIN, M.D.

**March 23**
GOLF AND ITS HAZARDS. MORRIS FISHBEIN, M.D.

**March 30**
MENTAL HYGIENE. W. W. BAUER, M.D.

**TUESDAYS**
**5 p.m. E.S.T. 3 p.m. M.S.T.**
**4 p.m. C.S.T. 2 p.m. P.S.T.**

*This program is available to all stations on the Blue Network of the NATIONAL BROADCASTING COMPANY, the Pacific Coast Network and affiliated stations.*

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## DEATH TO DISEASE— (Continued from page 237)

studying foods and nutrition. One of the most extensive problems handled by them is that of milk control. Aside from the constant routine laboratory work related to pasteurization and milk testing the Public Health Service is now engaged in a cooperative study of municipal milk control with the Committee of Improving Milk Supplies in Small Communities of the International Association of Dairy and Milk Inspectors. A study is being conducted on the basis of a questionnaire survey of some 3,000 urban communities of 1,000 population and over, with the view of determining the extent and character of milk control. These are some of the questions asked:

1. How many grades of milk are sold and at what price?
2. How much of the milk is pasteurized?
3. How frequently are farms and plants inspected?
4. What is the per capita cost and consumption of milk?

This research, it is hoped, will serve as an index to the progress of milk control in this country.

The national service also lends assistance to the state health departments in the problem of uniform milk control, special courses for the training of state milk sanitarians being given at the Federal Office of Industrial Hygiene. This course aids the state in securing an adequately trained personnel.

Recognizing that the national health level is raised if physical problems are checked in youth, the Public Health Service devotes an appreciable amount of its time and energy to investigations concerning child hygiene. Since 1921 the Child Hygiene Office has been collaborating with other agencies and has made several long-period studies on the growth and health of elementary school children at Hagerstown, Md. Probably no other group of children of the general population has been so extensively studied. Data collected at Hagerstown furnish the kind of basic background that is always essential, although rarely realized, in the prosecution of studies on child health. The government especially is afforded an estimate of the amount of health work imperative throughout the nation on such ever present problems as vision, hearing and nutrition.

During the coming year the government hopes to learn more about acute rheumatic fever and about allergies in children. The studies on rheumatic fever will be pursued in connection with the Children's Heart Disease Clinic of the Pediatrics Department of Johns Hopkins Hospital and with the Children's Tuberculosis Clinic of that institution. Concentration will be focused on the clinical *(Continued on page 288)*

# The Neighbors Lend a Hand

## A Project in Home Hygiene

By EUGENE O. CHIMENE

BACK TO WORK! An end to direct relief! That was the spirit of the hour. The Works Progress Administration labored valiantly to fit men into jobs. But the women were a more difficult problem, the field was much more limited. "Somewhere," reasoned the district director of women's work, "there must be need for these women—real tasks for which willing hands can be trained." So, in a small Texas city she appealed to the director of public health.

"Of course! Lots of health problems!" But the greatest of them was the task of bringing to the lowliest home in the small quiet streets and byways the modern knowledge that counts in the fight against disease. With its limited personnel the department of public health had in spite of its best efforts for eight years scarcely been able to scratch the surface.

"How could these untrained, unschooled women help?" That was easy. They themselves came from the very neighborhoods, some even from the very homes most difficult to reach. They were already sympathetically attuned to the people most in need of help for keeping themselves and their families well. Their neighbors, their friends, their associates—surely no one was in a more strategic position to form the connecting link between these people and the official health agencies.

The idea sounded reasonable. By the end of February, funds were definitely allocated. Home Hygiene Project No. 3674 became a reality.

At the outset every one concerned had agreed that these women from the relief rolls could serve most effectively the women and the children, the home and the homemaker. Too many babies were dying before they reached their first birthday; all too many lives of mothers were snuffed out in the supreme moment of bringing a new life into the world. Babies and small children were victims of diphtheria; tuberculous mothers were infecting their small children with the great white plague; many infants were dying from lack of proper nursing care—all because of ignorance, carelessness or neglect.

With these thoughts in mind definite objectives were formulated. The project was designed to reduce the present high infant mortality rate; to reduce the present high maternal mortality rate; to secure the immunization of preschool age children against diphtheria and smallpox; to assist in the control of tuberculosis, and to provide instructive bedside nursing care. Ambitious? Yes, but practical and aimed directly at the most pressing community health problems.

There would have to be trained leadership and constant technical supervision. The Works Progress Administration realized this when they formulated their regulations permitting one non-relief supervisory employee for every ten relief persons on a project. Under this ruling three graduate nurses were chosen for the project, and to each of them were assigned twelve women selected as the most promising material for the project from a group of about 300 who had been declared eligible for work relief.

THEY looked a rather discouraged and discouraging group when they were first assembled. Many of them, tired out both in mind and in body, had long since ceased to give a thought to their personal appearance. With hair bedraggled, clothes untidy and ill kept they seemed to have reached the "what's the use?" state of mind. To them life had become an empty routine; their impassioned faces told their story at a glance. Five were Mexicans; seven were Negroes, and the rest were white.

For three weeks these women were trained in the elements of home hygiene and home care of the sick; the nature of their work was most carefully explained; their own personal hygiene was stressed; one worker who had been a beauty operator demonstrated the proper method of giving a shampoo and a manicure. The women took the lesson to heart and used it on themselves. Tact, courtesy, the development of community good will, the proper approach to the householder, all these were subjects that were discussed freely over and over again. Each worker was impressed with the fact that she was in no sense a nurse, for wrong impressions spread either among the laymen or the local medical profession would be hard to correct later.

The three graduate nurses gave daily lectures on home care of the sick; they talked of all the simple problems of home care these women

THE PROBLEM IN THESE DISTRICTS SEEMED INSURMOUNTABLE. AFTER THE WORKERS GOT THE PLACES ALL CLEANED UP THEY WOULD RETURN THE NEXT DAY TO FIND THEM IN THE SAME DIRTY CONDITION AGAIN.

would be likely to encounter; but lectures for women who had had so little education were lacking in effectiveness. The nursing procedures needed visualization. To reinforce the lectures the nursing instructor from the city hospital gave actual demonstrations of the points the other nurses had discussed. Furthermore, these women needed practical experience, so ample opportunity was given them to practice in the classroom the things they were being taught. Lectures on special subjects were brought before the group to add variety and to keep up interest.

ATTRACTIVE uniforms bearing the letters W.P.A. on the armband were made in the local W.P.A. sewing room. A small kit with the necessary materials for simple nursing care was assembled for each woman. Each worker was assigned a definite territory for her own; and from that day it was to be her job to know the people in that neighborhood and to learn as quickly as possible their health needs and health problems. This meant home visits, friendly visits, visits to establish confidence of the householder in the worker, visits that would give the worker a chance to tell her community about the purposes of the project and at the same time enable the worker to gather the essential health data that would be of permanent value. A simple record form was filled out for each family, not for elaborate statistical studies but to serve as a reminder to the worker. Soon she would want to know how many babies there were in her district; which of them were not yet protected against diphtheria; where the expectant mothers lived. She would want to see that these mothers were having medical care. Were there any crippled children in her district? Why were they not receiving medical attention so that they might become useful members of the community?

These and dozens of similar questions were the reasons for the information to be gathered at the first visit. From time to time other infor-

WOMEN WHO WERE ON OTHER WORK RELIEF PROJECTS COULD NOT OF COURSE BE REACHED IN THEIR HOMES. FOR THEM SIMPLE DEMONSTRATIONS WERE SET FOR HOURS AT WHICH SMALL GROUPS COULD CONVENIENTLY ATTEND.

mation of value might be added to these survey forms, but now only those facts that had a direct bearing on the objectives of the project were collected and carefully arranged in the most useful and most readily accessible form.

THE first week in the field passed. A new light was dawning on the workers. Gone was their self pity, and their helplessness was fast being replaced by the vision of service to some one even more unfortunate than themselves. For the first time many of them were seeing misery and ignorance such as they could scarcely believe existed in their own community.

The nurse supervisors were overwhelmed with questions. The workers were eager for more instruction for they still felt rather shaky about actually doing in the homes the procedures they had learned in the classroom. So Saturday mornings were set aside for lectures, discussions and practice.

Immunization against diphtheria was offered by the city department of health. Each worker visited the children in her district in need of this protection, and so thorough and convincing were some of the women that they were able to report proudly that after only a short while not a preschool child in the district remained unprotected. It wasn't easy! For some workers the securing of parental consent meant repeated home visits and the taxing of their persuasive powers to the utmost. But in about three weeks' time 1,300 children had been given toxoid—more than had been thus protected against diphtheria in the entire preceding year.

Two new child health centers were established for Negro babies; one such was already in operation. Both there and at the centers for white babies and Mexican children, attendance grew by leaps and bounds as the weeks slipped by, for mothers were being taught that regular examinations are both important and valuable. The prenatal clinic had to be expanded from one afternoon a week to two afternoons to accommodate the expectant mothers whom the workers were finding. They were women who perhaps had never given a thought to the need for medical supervision during this most trying period.

Mothers and fathers, Uncle Bills and Aunt Kates who had been coughing for three, four or even more years, who had diagnosed their ailment as only a "bad bronchial cough," a "cigaret cough" or the after-effects of a bad case of the "flu"—these were the people whom the workers sent to the tuberculosis clinic for examination. Nor did the work stop there, for once the diagnosis of tuberculosis was established, the

worker did not rest content until every contact, particularly the child contacts, had been properly examined.

Faster and faster have come the calls for bedside care, for help for the woman with a broken leg or the old man with heart disease. Picture what it has meant to such persons, confined day after day to their beds, to have some one on whom they can depend to make them comfortable. But the worker must do more than just give care. She must teach some one in the home to give care during all the hours of the day and night. Many visits, perhaps daily visits are needed for such instruction, but that's the aim of the worker—to be an instructor, to teach the people in her district how to care for themselves, both in health and in illness. Utter dependence on the worker would leave nothing permanent in the home.

GENUINE home hygiene could never be satisfied to stop at the sickroom. The kitchen is the heart of the home; out of the kitchen come many of the real health problems of the family. Babies must be fed not only the proper food but clean food; mothers must know how best to feed growing children; the ailing aged need foods suited to their enfeebled digestive strength. A myriad difficulties for any mother, to say nothing of those mothers struggling to feed their families on the pitifully inadequate diets provided by direct relief. These were the folk most in need of help.

That's why an expert nutritionist was included on the staff of the project. Under her guidance the workers learned how the relief dollar could be stretched to the utmost to provide sustenance for the family; how every scrap of food could be utilized to the best advantage; how to prepare bottle feedings for babies; how to cook those simple foods that invalids must have if they are to make quick uneventful recoveries. They learned how there really could be such a thing as a cleaner house by 12 o'clock, and what a really clean house meant in the promotion of the whole scheme of family hygiene. In a tiny demonstration kitchen, purposely tiny because that was the kind most homes in their district had, and with a minimum of equipment since pots and pans would be scarce in the homes most in need of help, the instructors practiced all the details of better housekeeping they were being taught. In the field this training has stood them in good stead, for time after time the instructors have had to teach mothers how to "fix the babies' bottles," how to cook cereals and even how to scrub the floor.

There is no denying that the task was often discouraging. "Last week we showed Mrs. Stevens how to clean up her two room shack; we even helped her give the children a bath. Everything looked so clean for once. Then when we went back this week to see how she was getting along, the whole place was as dirty as ever—maybe dirtier. What are we to do?" Such were the lamentations of these instructors. Only the counsel of the patience of Job and the reward of a gleam of improvement after weeks of efforts could have held these women at their tasks.

Women who were on other work relief projects, such as in the sewing room, could not of course be reached in their homes. For them simple demonstrations were arranged at such hours as small groups could conveniently attend. At child health centers other food demonstrations were given for mothers who had brought small children for physical examination. Exhibits, posters and actual samples of the foods prepared were vital parts of these demonstrations in nutrition. These were just ordinary foods, mostly the sorts of foods the family on direct relief would obtain through the distribution of surplus commodities; they were used in new ways with appetizing combinations and were all tricked out to appeal to the taste of the growing child. Moreover, the samples really were convincing; children did enjoy them; mothers promised they would try out the new recipes during the week; instructors stood around with small groups and talked of the need for green vegetables and milk in the diet of small children. Here was a golden opportunity for some real education of the mothers with whom they were working, and the instructors made the most of their few brief moments to create an interest in that part of home hygiene which was being so sorely neglected. They offered thought provoking suggestions: Why not have a tiny vegetable garden instead of that weed patch in the back yard? Try canning those surplus vegetables brought in by relatives from the country.

THIS word of mouth teaching, teaching by doing, had to be the main tool of the workers; but everywhere they found a thirst for knowledge far greater than they could satisfy. The printed word could go on telling the story during the days between the workers' visits. Pamphlets on all sorts of health topics were collected from generous agencies interested in spreading the gospel of good health. From New York, Massachusetts and California came box after box loaded with health literature; it was modern, reliable and written for the very persons this project was trying to reach. It gave simple, straightforward facts any adult could understand and use. But before the workers could make use intelligently of this excellent material they had to read and understand it themselves; and this was no small task for women who were not accustomed to study of any sort.

One copy of each pamphlet was given to each worker, a collection of about forty pamphlets in all, and with genuine *(Continued on page 286)*

# Old Teaser Contacts the Wrong Business

By PHILIP JARED

THAT OLD TEASER should turn his mind to commercialism was not very odd, more amusing perhaps. Many 9 year olds get that urge during the summer, and whole neighborhoods break out with an eruption of lemonade, the made-in-the-shade, stirred-with-a-spade variety. Usually cut rate and cutthroat competition runs amuck, and such establishments find deep red ink deficits in the financial accounting. Parents soon tire of raucous curbstone advertising and interfere with their respective insolvent family enterprises by cutting off the source of donated merchandise and supplies. It is great fun for the young soft drink magnates while it lasts and until they learn of the existence of a financial Piper who must be paid. . . . But it was winter, and Old Teaser went into the furniture manufacturing industry.

It was my duty to keep the Answith home in order, especially the basement to which Old Teaser had been banished for his manufacturing activities. From previous experiences, Old Teaser knew he would be violently ousted from the laboratory either by his father or Old Sock, so he made no attempt to preempt that holy of holies. He tried to find for his factory peaceful lodgment in the laundry and objected angrily when he learned how routine household activities so important could not be stopped at his pleasure. After I had disappointed him about cluttering up the garage, he demanded to know just where he could peacefully pursue his new industry. Back of the furnace, he was told, and so I rigged up a lighting system for him.

Since every one else seemed so proprietary about floor space in the basement, Old Teaser became doubly so. He dragged in boards and old packing cases to build a wall around his "factory." For looks, it was a mess. Any one would naturally hesitate to enter the dilapidated place. Old Sock called it Quiller's Sweatshop, and Judith named it *Le Rat Mort,* the French way for saying "the dead rat." She always thought in exotic terms, and she had seen a movie once that showed a slummy night club by that name. Furthermore, she may have thought that Quiller's factory was only fit for a rat convention. But as long as every one else made no further pretense of attending to Old Teaser's business all was fairly peaceful in the Answith family.

He was quite busy after school hours for several days with his construction problems. Once I thought he was so busy he would not notice that I threw some old boards which were apparently "leftovers" into the incinerator. He accused me of a more serious crime than carelessness, threatening me with severe penalties. In his growling around he divulged a plan which a 9 year old might actually carry out.

"Next summer," he stormed, "I'm gonna catch a lot of black widow spiders and keep 'em in my factory. Then if you bother it, they'll kill you."

"Dear me!" I said mildly shocked and amused.

"Yes, and you'll be sorry you bothered it!"

"I'll get your father to give me a serum or something so I won't die, and then what?" I teased old Teaser. "How are you going to keep your spiders from biting you?"

"HUH? Oh, they won't bite me. I'll have 'em trained," he answered with doubtful confidence.

"They are already trained to bite *anybody,*" laconically. "And it goes harder with kids than with grown-ups."

"Just the same," he blustered fiercely, "you keep outta my factory."

The young furniture magnate disappeared into *Le Rat Mort* to think things over. After a while he began to yell, just to hear his head roar, "You keep out! You keep out!" until I had frazzled nerves. I knew better than to object for he was in a belligerent mood and was trying to start a family fray by inciting any one to invade his castle. Then he would have "right" on the side of his "might" to repel invaders and to do a bit of predatory invading on his own account. Little Claribelle came down to the basement to satisfy her curiosity, but I persuaded her it would be a good joke to ignore him completely. And that averted a real row.

At last Old Teaser got his factory into operation. It developed that he proposed to construct a flat topped desk with drawers in it similar to his father's desk. At first he began with one corner of the box portions. Then he changed his mind and really pounded together a top. It was not square, nor was it smooth enough for writing thereon, but it was a desk top. He inspected the inner construction of his father's desk as well as he could and put the top up on four uneven and rickety legs. I accused him of making only a table, and he scoffed at my imbecilic intellect, telling me I had no more sense than Old Sock or that Dumb Cluck, Judith. Anybody should know that if a table were "built in" and "cut out" right it would be a desk!

Next, Old Teaser's table became nothing more than a box with one side open. In order to "cut out" he had to turn it bottom side up to get into it for his intricate manipulations. I must admit he got the thing into the outward semblance of a desk. His ideas of putting in drawers was temporarily given up. He admitted that all he really wanted just then was desk space, not drawers. But how to smooth off the top so that he would not always be sticking his pencil through his paper when he wrote: that was a question, for he had no planing tool. Even so, his nails were flush with the surface and would ruin a plane with the first stroke. I could have suggested a way out of this simple dilemma for him, but I preferred to let him puzzle his own brain. I furnished him incentive by suggesting that he could not succeed. It worked like a tonic with him as with many stubborn persons.

MEANWHILE, he wanted to paint his desk, for I shall have to call it that. I caught him commandeering the patch paint I kept for the doctor's car. I took it away from "his nibs."

"Why don't you buy your own paint, and the right kind?" I asked him ungraciously.

"No money."

"Humph! Earn some like the rest of us do. Afraid to work for your money, huh?"

"What'll I do?" Old Teaser asked curiously.

"Ask your Dad. He's the boss around here."

"Aw, I don't wanna work," Old Teaser declared disgustedly.

"That's just what I thought. You want to be a baby and have some one give you things, you who want to be a Cub Scout."

Such talk might not work with some boys, or it might not have done much good coming from a real member of the family, but it got results in this case. Old Teaser suspended building and took up salesmanship. His father was rather surprised when he was "propositioned" by his second son for a "job or sumpin for money." Like the wise father he was, he asked Old Teaser to interview him in the privacy of his den so all the others could not hear and make sarcastic remarks. It made the boy feel as though it was between "us men," I suppose.

It snowed that night, and the next morning Old Teaser was out doing my snow shoveling ahead of me.

"Hey, there, that's my job," I called, suspecting what had happened.

"'S not yours if I get to it first," he answered breathlessly as he made the snow fly. His face was red with exertion and cold. "Daddy says so."

"So you're trying to chisel me out of my job, is that it?" I asked as jealously as I could. "You'll wreck my job just for a can of paint, eh!"

And so it went for the purchase of paint. Then he discovered he needed a paint brush,

IT DEVELOPED THAT HE PROPOSED TO CONSTRUCT A FLAT TOPPED DESK WITH DRAWERS IN IT SIMILAR TO HIS FATHER'S DESK.

and I got "done out of" several chores for a week. There was never such a show of useful initiative in Frederick Quiller Answith as there was in this flurry. And there was never a person with greater sense of pride in accomplishment as shown when he was fully equipped and slapping paint on his "desk."

"Spread your paint, don't daub and slop." I was the kibitzer.

"What'll yuh gimme to paint my desk?" he asked like Tom Sawyer.

"Are you going to paint the top?" I asked, ignoring his sarcasm.

"Who wants to know?" he asked impertinently. "I'm gonna cover that with battleship 'limnolum.'" The smooth top problem had been solved.

"Going to nail it on?".

"Naw," he answered shortly. "Stick it on like they do floors."

So once more he impatiently began an earning campaign and pestered every one who would listen about the best place to get his linoleum desk cover. The cost had been estimated for him by his father at a dollar. So when Old Teaser had teased the world out of that sum, Dr. Answith told me to arrange to take him down to the store and get what he wanted. I was to make up any deficits in Old Teaser's estimates secretly. I do not know whether he thought Old Teaser had learned enough about relying on himself to earn money or whether he was just tired of the matter. Anyway, I thought the boy had really learned something and was entitled to a little help.

His mind was greatly intrigued with linoleum with vivid colored designs until I told him he could not write on a desk with a top like that for his eyes would do acrobatics. He selected a thick piece of brown "battleship" linoleum such as he had once seen on a hospital floor.

OLD TEASER worked all evening to get it stuck on and got glue all over himself. He would not let me help him. I could sell my peanuts elsewhere, he said. Just the same, linoleum cannot be stuck on uneven boards like sticking a postage stamp on a letter. He was almost in tears when he was forced to go to bed though the job was still undone.

The next morning Old Teaser was a fearful sight to behold. I do not mean that his hair was matted together with glue or that he was all besmudged with grime. Instead, his hands were swollen so that he could hardly bend his fingers, and there were patches and streaks of red, itchy eruption on his arms up to the elbows. His face was hardly recognizable, and his eyes would not open more than narrow cracks so that he could peep through. The poor kid was really in a bad fix.

The family gathered around to see him. Old Sock and the Dumb Cluck had not a sarcastic word to say, at first. Little Claribelle wanted her Daddy to do something right away to cure him.

"Looks like poison ivy," guessed Old Sock, "but it is winter, and the plants don't grow."

"That's right," agreed Dr. Answith. "Quiller, did you wash your face and hands with soap last night before you went to bed?" He was inspecting the lesions on Old Teaser's forearm and saw a little dark smudginess on some of them.

"Course, I did."

"Humph, no better than usual, I suppose?" Old Teaser made no answer. "Then you have an industrial dermatitis, Son, and you'll have to stop the furniture business. Workmen have to change occupations sometimes. It's not the fault of the job, but there's something about the work being done that is poisonous to the workman."

"Uh-h-h!" whined Old Teaser through his thickened lips.

"Is this allergic, and related to that attack of hives he had?" asked Old Sock.

"WELL, allergy is an abnormal reaction to contacts, foods or bacteria, and he got himself smeared with glue last night, which he didn't wash off as well as he should have," explained Dr. Answith. "That should be a lesson to him. I don't doubt in the least that he is sensitive to something in that glue he was using. After he get's well, we'll do 'patch' tests and find out just what he has to avoid in the future."

The doctor carefully washed Old Teaser with soapy water, alcohol and ether on cotton sponges and smeared him with some sort of ointment.

"I can't go to school, can I?" asked Old Teaser hopefully.

"No. You cannot go to school for several days," Dr. Answith answered with a smile, knowing Old Teaser really wanted permission to remain home.

Three days later he was feeling much better and was again something of a household pest. He asserted that when he got big, meaning fully grown, he was expecting to beat the tar out of Old Sock.

"Aw, go lick a postage stamp," scoffed Old Sock.

"Huh-unh, got glue on it!" said Old Teaser pertly, thinking he knew what he was talking about.

"Run along, 'little industry,'" said Old Sock, referring to Old Teaser's "industrial dermatitis."

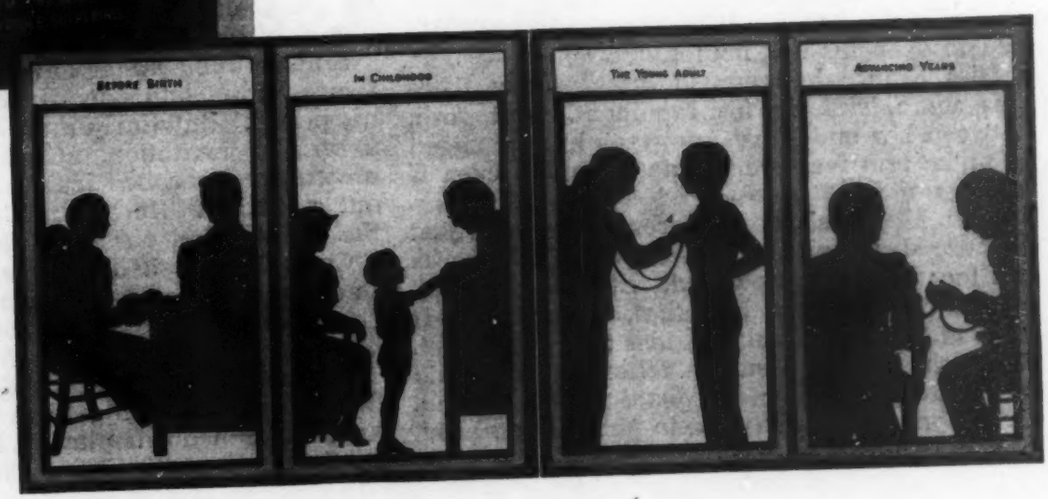
And he was mean enough not to explain to Old Teaser that postage stamps do not have glue on them but a harmless mucilage. I overheard him laughing with the Dumb Cluck about it. But a few days later when he tried the same gag on Old Teaser, he got a surprise.

"Don't have to lick any stamps," Old Teaser shouted. "I can lick the envelop. Yah, yah, Old Smarty Sock!"

The Cough That Hangs On May Be Only A Cold
But If It Happens To Be Tuberculosis
Your Children May Catch The Infection
Cathartics May Relieve Some Stomach Aches
But Suppose The Ache Is Appendicitis?
Cathartics Make Diagnosis Doubtful
Your Aches And Pains
Which Have Scared You Sick
May Need Only A Correct Diagnosis And A Word Of Reassurance
The Sore That Will Not Heal
May Not Be Cancer But -
Let Your Doctor Decide Early

# Every Mural Has a Moral

**A Health Exhibit of the American Medical Association**



# CAUGHT!

By

**HENRI H. MURRELL**

SOMETHING WAS going to happen, Bruce Holt knew. A sudden, tingling feeling hopped and skipped along his spine. A fellow could always count on something exciting happening whenever Clyde Howard's face looked so very sober and his big blue eyes so dancingly alive. While pretending to keep his eyes on his speller, Bruce watched his friend tear a scrap of paper from the last sheet in his tablet and wad it into his mouth.

Already, three creamy white wads lay side by side on his desk. His own teacher would have known he was being far too quiet for Clyde Howard Lowen. But Miss France was helping Miss Gilmore drill the Washington pageant while the principal, Miss Link, watched third grade.

Miss France would have known exactly what to do. Her sweet, red-lipped smile could ease away all sorts of trouble. Sometimes just a look from her soft blue eyes would nip trouble in the bud. But sometimes she would say, with a bruised voice as though he had trampled on her, "Only Clyde Howard could make me believe he did that. Did you, Clyde?"

At times, he could say "No." Occasionally, he had to say "Yes." That hurt, and he would add, "But I won't do it again." He always meant to make his promises come true. It would have been easy if that old saw about opportunity were only true—if it only came along once; but it was forever pestering Howard.

There was that day when Mary Ann's curls needed the teeniest push to go in his inkwell. Anyway, he had told Miss France, he hadn't wanted her spraddly ol' hair on his desk anyway. If she cared so much about the ol' yellow stuff whyn't she keep it at home, anyway? He had to keep his dog home, or else, an'—

Miss France had agreed, hastily, that there was some truth in his argument. But gosh, between her and Mary Ann, they had managed to make him feel pretty small about it even if he *was* right.

Now, Miss Link was different. It wasn't just because she was so old either. Miss Grant was old too; but she was grand, with a capital "g" and two "a's," just like that, "Gra-and!" It seemed to be Miss Link's insides that were upset. She was always so sure a fellow meant to do wrong, when maybe he was just having fun. Or, maybe opportunity got to pushing too hard. She was all eyes, with eyeglasses and everything. Occasionally, when her back was turned, she would catch their reflections in her glasses, so that the children believed she had eyes in the back of her head. Just now, Clyde Howard was wondering about that.

He frowned thoughtfully as he rolled freshly chewed paper between two sticky palms. Harder and faster. Bruce grinned from where he was sitting two aisles over. Putting the shaped pulp down, Clyde Howard hefted one of the others. Its very touch thrilled him. It would have plenty of zip.

Still, nothing might have happened if Curly Lyons hadn't lain down in his seat to pick up his pencil. But Curly *did!* It was better than a written invitation. Clyde Howard's small brown hand reached inside his desk and drew out a shooter. He had made it himself. And the paper bullet did show plenty of zip.

Curly let out a blood curdling Indian yell. One hand on the seat of his red corduroys, and head bumping his desk, the grade's precious little old fat boy got to his feet.

The room whooped. Curly yelled even if a little sweat bee stung him. When somebody knocked him down playing blackman, he just stayed down and bellowed—the big cream puff.

"DID YOU KNOW IT WAS AGAINST THE SCHOOL LAWS TO SHOOT PAPER WADS?" CLYDE'S MOTHER ASKED WHEN HE TOLD HER WHAT HAD HAPPENED AT SCHOOL THAT DAY.

Miss Link started down the aisle. Bruce said afterward that she stalked—whatever that was. The whole room was roaring but Curly (and he was roaring too, only in a different way) and Clyde Howard, who was industriously studying.

"Clyde Howard, what are you doing?" Miss Link began.

"Gettin' my spellin' lesson."

"You shouldn't say *gettin'* and *spellin'*. Say *getting* and *spelling*. But come, let's have the truth."

"Well, I am!"

"What did you do to Johnathan?" Johnathan was Curly. Clyde Howard's innocence was amazing, without his really lieing. He shrugged his shoulders and kept on studying. Miss Link gathered a few strands of his taffy colored hair in her bony fingers and pulled. Just a gesture. But the small boy's face came up with a frown. "Aw, say!"

"Give me that—whatever it was."

"Give you what?"

Miss Link's middle finger went "blimp" off her thumb against Clyde Howard's head, much as a farmer tests a watermelon. He pushed her hand away angrily. Unfortunately for him, Curly reached across into Clyde's desk and dangled the shooter from fat, white hands.

"You'll stay in tonight after school, Clyde Howard," Miss Link snapped.

Bruce waited for him. "What'd she do?" he demanded anxiously, hands thrust deep into his trouser's pockets and brown eyes snapping.

"Nothin'. Nothing, I mean."

"Really nothin', or you just say nothin'?"

"Oh, kind of."

"Huh—I wouldn't stand for it."

"Well, I *did* hit Curly." Howard's blue eyes turned on his chum a brief gleam of amusement.

"Yeah. It was good. You'd oughta watch and not get caught. It's gettin' caught that matters."

"It was fun, anyway."

They parted at Clyde Howard's, Bruce going on to his home next door. Each shouted "Mom!" changed clothes, buttered huge slabs of home-made bread and with mouths full met again at the line fence.

"Did ye tell yer ma about being kept in?"

"Sure."

"What'd *she* say?"

"She was sorry."

"Sorry? For you?"

"N-no. I don't know. Just sorry."

"Is that all? Say, I'm glad I don't have your mom. She don't love you, that's what. She just don't care about you! My mom said we kids didn't have to stand for getting our hair pulled and our heads plunked. If that had been me, my mom would be there tomorrow seeing about that. Betcher life."

Like some rock, Clyde Howard's stomach dived straight to his toes. "My mom does too love me." But his small voice lacked conviction, which his chum was quick to sense.

"All right, Mister. If you think she does, ask her what she's going to do about Miss Link. Just ask her and see."

When his mother called supper, Clyde Howard went in but not quite as usual. He hung up his coat and cap without being reminded to do so. Without any demonstration he scrubbed his face and hands until they would have passed army inspection. At the table there was spinach on his plate, and he forgot to crab.

That was the signal that something must be wrong. His mother eyed him closely. Yes, he was only playing with his food.

"Don't you feel well, Sonny?"

He mumbled something unintelligible to his mother's sensitive ears. "What's the matter, my boy? Tell Mother." He didn't answer. "Aren't you hungry?"

His face scrooched up. "Nope." He squared off, face lifted, eyes unflinching. "I don't want to eat your food. You don't love me. Bruce said so."

"Well! How does he know? Is he an authority on love? Come, let's talk it over, sensibly."

CLYDE shifted his weight. But there was no use stalling. Sooner or later he'd have to get it out. The miserable truth burst from his lips. "Bruce says if you love me you'll tell Miss Link she can't treat me like she did today—pulling my hair and plunking my head." He stood beside the table, measuring his mother, waiting for the assurance that would prove her love, or its lack.

Some way the thoughtful, troubled look on her face did not promise much. She sat down beside him, but he wouldn't let her touch him.

"I really hate to have my son treated so. Believe that, won't you Clyde Howard? But before I tell you what I am going to do, let me ask you some questions. You knew Miss Link often did just what she did to mischievous children, didn't you? She did it to me, once, when I was in school."

"Yes, I knew. But—"

"Do you honestly think you are as bright, or, let us say, almost as bright as the other children in your grade?"

"I ranked first last month."

"Did you know it was against the school laws to shoot paper wads?"

"Well, if you get caught—"

"Exactly. You knew you were running a risk, then?"

"But that doesn't have anything to do with what you are going to do with Miss Link though."

"Doesn't it? It has everything to do. You believe, as I believe, that my son has at least ordinary intelligence and judgment. Usually, people call it brains and common sense. He knew he was breaking school laws by shooting that paper wa—"

"Call 'em paper bullets, Mom, please."

"Er—well, since he knew what he was doing and knew exactly what Miss Link was likely to do—if he got caught—it looks as if my small son got just what he wanted. At least, he was inviting it. I'm sorry, but he will have to put an 'i' in think, for himself. I can't do that for him."

CLYDE HOWARD thought it over a moment, head down, a little stubborn. Then his old-time happy smile broke out and ran over his face and deep down into his big eyes so that they looked like lakes with the moonlight on them. "I see what you mean. If I do things I know will get me into trouble, then I'm the one that has to pay."

"Something like that. When we are small we begin to learn to keep certain laws, so that when we are men and women we will keep the laws of our country: first the home laws; then school laws—grade school, junior high, senior high—and then the laws of the world."

"Is that what law means, something to make us good?"

"N-no, not really." His mother smiled. "That's a big question, Son. Laws are for protection, for ourselves and for other people. To be a success as a citizen, we must each one respect our fellow-man's rights, and we should obey and keep the laws as long as they are laws."

"Just what are grown-up laws for?"

"Mainly so that greedy, thoughtless, selfish and cruel people must treat others fairly or suffer punishment. Good laws do not distress or bother law abiding people."

"You mean, Mother, that if I had kept the school laws, Miss Link wouldn't have plunked my head?"

HIS mother smiled warmly and drew him close. "Well, Darling, if she didn't treat the other children that way, and did you, don't you suppose it was probably your fault?"

He grunted. Then his voice soared bravely. "Gee, Mom, here comes Bruce. Tell him, Mother. Hey, Bruce, the big thing isn't either in not getting caught. It's in keeping the laws. It's in putting an 'i' in think, for yourself. And say, my mom does too love me. Don't you, Mom?"

"More than all the world, Son."

# SCHOOL AND HEALTH

A Department Conducted by J. MACE ANDRESS, Ph.D.

67 Clyde Street, Newtonville, Mass.

## The Challenge of Leisure in Adolescent Education

### THE SEVENTH OF A SERIES OF EDITORIALS ON UNDERSTANDING THE ADOLESCENT

JIM FORBES took pride in his success. He was what the world calls a self made man. From the time he entered high school he was a hard worker, a "plugger." He ranked high in mathematics and Latin as well as in all his other studies; he graduated at the head of his class and in the following year entered the engineering school of his state university. Success still continued to smile on him. By close application to his academic and professional subjects he won many honors. Even before graduating from the university he was offered a good position in a steel manufacturing concern. In succeeding years he became a member of the firm. Money fell into his lap as if by magic.

At the age of 62 he decided to retire, give up hard work and have a good time. He and his wife made a tour of the world. The trip was pleasant but rather boring. He was heartily glad when it came to an end. On his return he decided to buy a farm and raise blooded stock. The venture was entirely new, since he had never before lived on a farm, and neither had he cultivated any particular interest in the country. The new project was quite exciting at first while he was buying the farm, building stables, purchasing stock and getting settled.

BUT after two years he found himself in a state of despondency. The quiet of the country got on his nerves. He missed the bustle of the factory, the management of men and the mastery of many problems to which he had devoted his life. The call of the factory—the making of steel—was too much for him. He had no resources for leisure. He left his farm and returned to the factory until increasing age and waning physical powers forced him again to retire. But as before he had no interests to meet the situation. The manufacture of steel and the making of money had absorbed his whole life. In recreational resources he was bankrupt.

This story of Jim Forbes is similar to the life stories of thousands of other Americans who have failed to play, to enrich their lives through the cultivation of wholesome interests and attitudes. Such persons are likely to find a certain amount of difficulty in adjusting themselves to life. It may happen that in the face of some calamity, such as the loss of money, health or domestic felicity, they are so bankrupt in interest resources that they are forced to seek psychiatric aid.

THIS may necessitate a reeducation of new interests by slow and even somewhat painful methods. It may start with such simple occupational therapy as learning to knit or play a child's game. Certain it is that any individual with many wholesome interests has a worthwhile insurance against mental and physical ills. Life to him is intriguing. Time never hangs heavily on his hands. His enjoyment of life is keen and satisfying.

Today our schools are beginning to realize the need of education for leisure. This has been brought to their attention largely by the enforced leisure of the millions of the unemployed. It is also evident that we are living in a machine age in which the entire population will share in a decrease in the number of hours of work. It is not strange therefore that the National Education Association should adopt "The use of free time for worthy activities and pleasures" as one of its seven objectives of education. If this aim is to be realized now and in their future life as citizens it is evident that boys and girls must cultivate these interests at school. They are just as important if not more important than the mere acquisition of knowledge.

The first line of attack might well be through the traditional subjects of the curriculum. This will require a new and higher standard for teaching. Usually teachers of English, for example, have been held responsible for getting their pupils through examinations on the reading of certain books. In addition to such requirements, teachers in the future may be expected to inspire in their pupils such a love for good reading that they will go on reading the best literature throughout the remainder of their lives. Today it is unfortunately too often true that the reading of a book in class attaches to it such a dislike that not only is it never read again, but this dislike may extend to other books as well. History may prove to be so fascinating that to many such reading may be a hobby. It is even conceivable that the study of mathematics may be taught so well that it becomes increasingly valuable in an understanding of the machine age in which we live. The study of Latin may lead to such an interest in words that from that time on the student finds genuine fun in word analysis.

THE less conventional subjects of the school usually lend themselves more easily to the promotion of hobbies. Music and art should open up new worlds of appreciation. The manual arts may lead to permanent interests in making things both useful and beautiful. Physical education ought to be so well organized that practically no high school student could graduate without having skill in one or more outdoor sports. The love of the outdoors should be fostered by an integrated

program which helps to make life in the open air attractive. Nature study, poetry, art, local history and civics may all make contributions.

In many of our junior high schools today clubs are doing much to encourage the development of hobbies, such as collecting, photography, music, art, sports, dramatics and public speaking. Such clubs promise a relief to the more or less formal teaching of regular subjects in the curriculum. Games, plays and exhibits in which students may participate in large numbers are also helpful in giving the school a morale and fostering worthy interests.

In many of our best high schools an effort is made to find out how pupils spend their time outside of school and to suggest ways in which they can best budget their time. One high school gets out a mimeographed sheet announcing plays, games, art exhibits, musicales and new books in which their pupils might be interested.

Parents often complain about the adolescents' craving for excitement and a good time. This is a powerful but perfectly normal force. Good teachers and good schools will seek to control this tremendous drive so that their pupils may find excitement and satisfaction in worthwhile activities that promote health and emotional stability.

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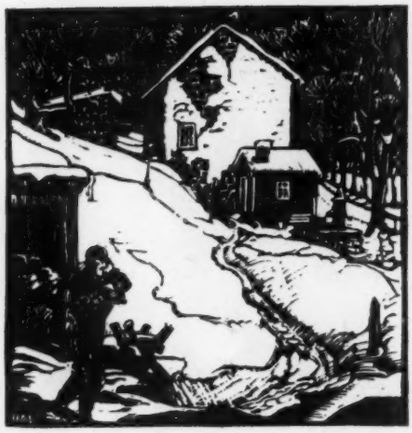
## ACCIDENT FACTS AND SAFETY TEACHING

FLORENCE NELSON
Editor, Safety Education Magazine
NEW YORK CITY

*The passing of winter means that our highways are again crowded with automobile traffic. What are the chief dangers from accidents at this time of year? What can the school do to reduce the number of accidents on the highway? Miss Nelson in the seventh of her series of notable articles on safety education offers teachers many practical suggestions.*

THE APPROACH of spring again focuses attention on outdoor accidents. March is an appropriate time to renew the study of street and highway safety and to re-emphasize the seriousness of the automobile accident problem. A brief review of some of these accident facts may be helpful as a basis for classroom studies and activity programs.

Motor vehicles were the "number one" cause in the 1935 accident list, accounting for 36,400 fatalities, 105,000 permanently disabling in-



juries, and 1,180,000 temporary disabilities.

Of the 36,400 fatalities pedestrian deaths are estimated at 16,150, approximately 44 per cent of the total. The other most important classification is that of collisions between two motor vehicles, in which there were 9,650 deaths, or 26 per cent of the total.

What are the chief causes of these accidents? According to studies made by the National Safety Council and reported in "Accident Facts," most accidents have not one cause but a combination of several causes.

*Highway Defects.*—Starting with the less important causes, we know that many highways are not yet as safe as they might be. They are too narrow; curves are too sharp; signs and signals are not standard, and so on. These faults, when combined with inattention or ignorance on the part of the driver, often result in accidents. The careful, skilful driver, however, rarely has an accident, even on a defective highway.

*Vehicular Defects.*—It is estimated that 15 per cent of the accidents are due to defects of the vehicle itself, the most important being defective brakes and deficient or glaring headlights. As with unsafe highways, however, the careful, skilful driver can generally avoid accidents even if his vehicle is defective.

*The Pedestrian.*—Pedestrians act unsafely under many circumstances. Children play in the street because they do not know any better or because they have no other place to play. Adults take foolish chances by crossing a street in the middle of the block or going against the signal.

*The Driver.*—The driver is the most important factor. Some drivers have accidents because they are actually defective in mind or body. They do not see or hear well or are not strong enough to control a heavy vehicle; their senses may be dulled by fatigue, carbon monoxide, alcohol or by any combination of these things.

A much greater number of drivers have accidents because they do not know how to drive. They have never learned proper methods of making turns, backing, signaling and so forth; they do not observe right-of-way rules, stop signs or traffic signals, to say nothing of their obligation toward pedestrians and others on the highway.

The greatest number of drivers who have accidents, however, are neither physically defective nor ignorant of traffic rules. They do not want to have accidents, but neither do they sufficiently want *not* to have them. They take chances by going too fast; they pass other cars on hills and curves; they cross railroad tracks without looking; they do not slow down at intersections, and they expect other drivers and pedestrians to get out of their way regardless of traffic conditions.

What is the remedy for traffic accidents? First, we must improve our highways and keep our vehicles in good condition. Second, and more important, we must teach pedestrians and drivers "to realize the accident possibilities of all their actions on streets and highways and to act accordingly."

### Elementary Grades

Children of elementary school age are injured most frequently in traffic while they are on foot. In fact, pedestrian deaths in this age group amount to 77 per cent of the total. In view of this record, instruction in the elementary school should be based on the following simple rules for safety on streets and highways:

1. Watch and obey the traffic signals. They protect you.
2. Obey the traffic officer. He is your friend.
3. Play on the playground or on the sidewalk—never in the street.
4. Avoid doing the three things that cause most accidents to children: darting out into the street, running from behind parked cars and hitching rides.
5. Face front when getting off a street car. Watch for traffic, and wait until the road is clear before crossing to the curb.
6. Obey traffic regulations when riding a bicycle. Never carry any one on the handlebars.
7. Choose safe hills for coasting; *never* slide where there is traffic or where your sled will have to cross a street.
8. Avoid playing around excavations and buildings under construction.
9. Never walk or play on railroad tracks and trestles. Always

stop, look and listen at grade crossings.
10. Hold your umbrella high on rainy days, to avoid injuring people or running into vehicles.

Following are some suggestions for activities in the elementary grades:

1. Study the kinds of street (or highway) accidents that are happening in the school neighborhood. What are the causes?
2. Make a report suggesting how pupils can work together to reduce these accidents. Is a Junior Safety Council needed? A school boy patrol?
3. Make a report for the principal, suggesting how the school authorities, police department, recreation department or other community agency might provide additional safeguards for children on the way to or from school, or at play.
4. Interview a traffic officer or invite him to visit the classroom. Ask his advice about helping to reduce street accidents.
5. Make posters illustrating the safe practices listed above.
6. Write stories or brief articles for the school paper telling how your class is helping to prevent street accidents.

### High School

Most traffic injuries to high school students occur while they are driving or riding in automobiles. Many high schools are now offering systematic instruction in the principles of good driving, and in some cases they are actually providing road lessons for students. (Information concerning these programs may be obtained from the Education Division of the National Safety Council, 1 Park Ave., New York City.)

Following are some activity suggestions for high school students:

1. Study the principal causes of highway accidents, with particular respect to the driver (see paragraph on the driver in the introductory section of this article).
2. Make a study of the various ways in which your city or state is cooperating in the National Five Year Traffic Campaign, which aims to reduce motor vehicle accidents at least 35 per cent by the end of the year 1940. How can your high school help in this?
3. Visit a local traffic court and make a report to your school. How many young drivers were involved in these accidents? What violations of traffic laws occur most frequently?
4. Plan an assembly program featuring traffic safety. Invite a local safety expert (traffic engineer, safety council director, police commissioner, etc.) to make an address. Show a motion picture which illustrates good driving practices.
5. Prepare a traffic safety exhibit. Include original posters, maps, charts and photographs. Invite parents and friends to view the exhibit.

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## THE CHOOSING OF BYRD'S CREW

BELLE L. DICKSON
Supervisor of Intermediate Grades
Humbolt State Teachers College
ARCATA, CALIF.

*The alert teacher of health realized the value of history in the making. In this sixth grade lesson, Miss Dickson utilizes the explorations of Admiral Byrd. The children discovered that one must be both mentally and physically healthy to be worthy of membership in Byrd's crew.*

### Aims

To apply some of the knowledge gained through the study of health in school to a concrete "life situation."

### Materials

Reference books and magazines, including:

National Geographic Magazine
September 1926
September 1927
August 1930
Literary Digest
Dec. 14, 1929
Science Magazine
Dec. 6, 1929
Current History
January 1930
American Magazine
February 1928
Skyward
Richard E. Byrd
Little America
Richard E. Byrd
Health in Homes and Neighborhood
Bigelow and Broadhurst
Health for Everyday
Bigelow and Broadhurst
Good Neighbors
Mary S. Haviland
The Way to Keep Well
Newmayer and Broome
Health Essentials
Andress and Evans
Health and Good Citizenship
Andress and Evans
Health and Success
Andress and Evans
Health Habits
Burkard, Chambers and Maroney
Broadcasting Health
Andress and Goldberger

### Procedure

TEACHER: Not long ago when we were talking about world citizens the name of Richard Byrd was mentioned. What do you remember hearing or reading about Byrd?

CHARLES: In 1926 he flew over the North Pole and later flew over the South Pole.

TEACHER: This letter I am going to read to you was published in *Science Magazine* for Dec. 6, 1929. It was written by President Hoover to Commander Byrd. I think it is a fine letter. I'm anxious to know whether you agree with me and if so, why. As I read, see whether there is any part you find particularly interesting. (Read letter.)

JOSEPHINE: It was nice of President Hoover to congratulate Byrd.

JACK: It was nice of him to tell Byrd we are all proud of his courage, because we *are* proud of any one who is brave, just the way we are proud of Lindbergh.

ROBERT: He said he was glad that some one still liked adventure. I think every one does. Any one would have been glad to go with Byrd.

TEACHER: Perhaps you are right. I'm sure many boys and young men applied for membership in his party. No one has mentioned the part of Hoover's note in which he also congratulated Byrd's companions. I'm going to read those last sentences again. "Without financial support from progressive people interested in the new knowledge to be gained in geography and botany, his expeditions could not have been made. And without a company of strong and brave men he could not have succeeded." What question do you want to ask?

VIRGINIA: How did Byrd decide whom to take with him?

TEACHER: Of course, Byrd could not know the many men who applied. It would not have been possible for him to interview all

applicants. Let's suppose now, that you had been engaged to employ Byrd's crew. What kind of men would you have selected?

JACK: First of all, a man must be fairly young because he would have to stand some hardships.

HELEN: I'd pick out good strong men.

TEACHER: How would you measure a man's strength or endurance?

CHARLES: He would have to take a physical examination.

TEACHER: That, it seems to me, would be very important. What would you include in your examination? Let's all plan this out together.

JOSEPHINE: They usually begin with your heart and see whether that is in good condition, and then they examine your lungs. (Additional points suggested were teeth, eyes, nose and throat, strong constitution.)

TEACHER: Of course, if you were going off miles away with only a few companions you couldn't include weak, sickly men. Aside from being healthy what kind of a person would you choose to have with you in danger and hunger?

JACK: I'd want some one brave and fair.

TEACHER: Those are both important; what is that word that means working together?

ROBERT: Cooperation. I'd want a helpful person.

JACK: It would be pleasant to have some one around who didn't have a "chip" on his shoulder.

TEACHER: Let's call that cheerful, and under that I'll write "optimistic," which means seeing the bright side of troubles, "cooperative" and "sportsmanlike." Byrd's men filled these qualifications rather well. But they didn't make themselves healthy and strong in a few weeks or in a year. They began preparing themselves for this trip when they were boys in school. For example, in order to have sound white teeth, they must have formed the habit long ago of using a toothbrush correctly at least twice a day, using dental floss and some dentifrice and seeing a dentist twice a year. In these reference books, find habits they must have practiced to develop strong lungs, muscles and so on. Go right down the list, including as many habits as you can. Then compare your paper with the article in the *American Magazine*.

### Activities

Recall Richard Byrd's two expeditions.

Listen to President Hoover's letter of congratulation.

Comment on his letter.

Reread last of letter.

Discuss necessary physical and mental qualifications for polar expeditions.

Decide what habits result in the attainment of these.

Report to class.

### Follow-Up Work

Read and report on magazine articles and newspaper accounts of the Byrd expedition.

Write to the New York *Times* for further information.

Listen to weekly health broadcast.

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## PLANNING A UNIT ON SLEEP AND REST

MARY ALICE O'NEIL
Huntington School
SYRACUSE, N. Y.

*Good planning of a health program brings results. The incidental teaching of health is desirable and necessary; but our best teachers today realize that health must be integrated with the varied school activities. Miss O'Neil suggests briefly what may be done in a fifth grade.*

This is an outline of the plan by which I taught the health unit on sleep and rest in the five-one grade.

### Objective I

Go to bed regularly at an early hour.

Give this contrasting picture to the class: John came to school this morning feeling fine. His eyes sparkled, and he wanted to recite in all classes. John is liked by his classmates for he is good natured and smiles often.

Bob came to school this morning three minutes late. He looked tired and smiled at no one. His recitations were poor. At recess a game was played in which John had plenty of fun, but Bob was too tired to enjoy it.

What remedy do you suggest to help this unhappy Bob? (Among suggestions will be *more sleep.*)

The question arises, How much sleep do children of this age require? Put the question and the following figures on the blackboard:

| AGE | HOURS |
|---|---|
| 6-8 | 12 |
| 8-9 | 11½ |
| 9-11 | 11 |

Many of you may ask, Why is it necessary for boys and girls to get sufficient sleep? The answer is: During the day while we play and work we use energy which comes from burning cells and tissues of the body. Rest and sleep in addition to proper food rebuild these cells so that we may store energy for the next day's work.

What happens to the child who doesn't get enough sleep? Suggestions from the children about the results of lack of sleep include:

1. Poor school work, poor marks.
2. Body doesn't grow strong.
3. Restless and cross.
4. Appetite poor.
5. Underweight.
6. Poor in athletics.

Get suggestions on what will prevent children from getting to bed.

*(Continued on page 283)*

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*To Contributors:—The editor of the School and Health Department will be pleased to receive articles dealing with the actual solution of concrete and practical health education problems in the school. Contributions on general theory are not solicited. Articles must not exceed 1,000 words in length. Stamps should accompany manuscripts to insure their return if rejected. All articles accepted will be paid for at regular rates. Address Editor of School and Health Department of* HYGEIA, *67 Clyde Street, Newtonville, Mass.*

# QUESTIONS AND ANSWERS

### Artificial Respiration: Schafer Prone Pressure Method

*To the Editor:*—Is the modification of the Schafer prone pressure method of resuscitation correct?

E. N. D., Connecticut.

*Answer.*—Certain criticisms which have been made of the modifications of the Schafer prone pressure method of carrying on artificial respiration in persons submerged in water till breathing has stopped are essentially correct. There should be no delay in getting air in and out of the lungs. It is unnecessary to "jack-knife" the victim or bend him over a barrel. If he is placed on the abdomen with nose and mouth lower than the chest, most of the water in the lungs will run out while the artificial respiration is carried on. A delay of a minute or even thirty seconds may mean death instead of resuscitation.

Any instructions on this point should include the advice to place the victim with head lowest, where sloping ground is available. Both arms should be pulled straight forward parallel to the head, as this increases the chest capacity by lifting the ribs. This is extremely important when one realizes that inspiration is entirely passive in the Schafer method. If one arm is placed under the head, the chest volume is decreased, and the outflow of the water from the lungs is impeded.

Every person should be given practice in applying prone pressure artificial respiration. Theoretical knowledge is not enough. The inexperienced do not realize the great amount of pressure required to force from 200 to 400 cc. of air out of the lungs in an unconscious person lying prone. They should be everlastingly urged to speed, since loss of a few seconds in starting artificial respiration may mean death to an unconscious person whose heart is still beating, however faintly. If the beach or the boat deck is sloping, place the victim on the abdomen, head down hill, arms pulled forward on either side of the head, and begin. If more than one person is present, a second person can assist by putting a stick between the victim's teeth, pulling the tongue forward and swabbing the water and frothy mucus from the throat while the artificial respiration is going on.

Resuscitation of the drowned frequently fails because of delay in starting the artificial respiration or because of failure to apply sufficient pressure to produce from 200 to 400 cc. of "tidal air," the operator fearing to exert sufficient pressure lest he break the ribs. There is little danger of the latter, at least if the victim is an adult; and in any event, broken ribs heal if the victim is restored to the living.

*If you have a question relating to health, write to "Questions and Answers," HYGEIA, enclosing a three-cent stamp. Questions are submitted to recognized authorities in the several branches of medicine. Diagnoses in individual cases are not attempted nor is treatment prescribed. Anonymous letters are ignored.*

### Eyeglasses for Cataract

*To the Editor:*—I should appreciate information concerning "refrigerating lenses," supposedly a prevention for cataract. Have these lenses merit?

A. H. M., Texas.

*Answer.*—"Refrigerating lenses" are probably so named to give the impression that they have a cooling effect on the eye. A sensation of heat, or "burning" of the eyes, may be caused by exposure to wind or dust or by the sun shining on the eyes. It is most generally caused by congestion or strain of the eyes by use. If the eyes have optical defects, glasses fully correcting such defects would give relief from such sensations, whether they are called "refrigerating" or any other of the many copyrighted names under which glasses are sold.

Accurate correcting glasses, properly fitted and worn, do tend to prevent or retard the advance of cataract. They do this because they are accurately fitted to correct the refraction of the eye. The usual advance of cataract is so slow and depends so much on conditions of general health that it is difficult to judge just what share any glasses have in preventing it.

### Muscular Dystrophy

*To the Editor:*—I am writing for information on the disease called pseudohypertrophic muscular dystrophy, with which I have been troubled for about fourteen years. Has there been any recent research work on this disease, or is there any cure at present?

M. M., Wisconsin.

*Answer.*—Recent work on the treatment of pseudohypertrophic muscular dystrophy has centered largely on the beneficial effects of certain amino-acids, particularly one called glycine. These compounds are normal constituents of protein and are necessary to the complicated chemical reactions involved in the building up of muscles and in muscular activity. Evidence has been accumulating that the feeding of glycine to patients with pseudohypertrophic muscular dystrophy is frequently followed by improvement. Changes take place in the diseased muscle as a result of the treatment. Before treatment the individual muscle fiber is large and swollen because it is infiltrated with fat. Hence these muscles possess the deceptive "athletic" appearance so characteristic of the disease although in reality they are weak. After glycine treatment many fibers assume their normal size and shape; others seem to shrink completely. Clinically the affected limbs become stronger, and the patient's general health improves. The diet should be well rounded and should contain an abundance of protein.

Glycine itself is a white, dry, granular material, and the dose must be regulated for each individual by the physician. The use of this drug will probably have to be continued over a long period of time and possibly for life. Because of the high cost of material, search has been continuous for a cheaper agent. Apparently this search will be rewarded in the near future.

It has been pointed out by more than one observer that glycine should not be confused with a photographic developer known by the trade name of "glycin." The latter compound is poisonous.

# New Books on Health

[NOTE.—Books reviewed or mentioned on this page, other than those published by the American Medical Association, should be ordered from booksellers or direct from the publishers. They may not be ordered through HYGEIA or the American Medical Association.]

## DO'S AND DON'TS FOR SAFE SKIING

By Charles S. Lund, M.D., and Charles N. Proctor. Paper. Price, 10 cents. Pp. 31. Illustrated. Boston: Boston and Maine Railroad (Armstrong Company, North Station, Distributors), 1937.

SINCE 90 per cent of skiing injuries are preventable the authors of this handbook tell how to prevent them and how to render efficient first aid if they do occur. "The best advice about accidents," they declare, "is 'Don't Have One.' However, if you do happen to get hurt the next best thing is to know proper first aid. Intelligent first aid will often prevent a minor injury from resulting in a major disability."

Good physical condition, good equipment, controlled skiing and a knowledge of proper first aid are distinguishing characteristics of the able and intelligent skier, and these are discussed concisely yet fully.

Under the prevention of skiing accidents are included a discussion of sound physical condition, a description of protective bandages and strapping, and three exercises, excellently illustrated.

What to buy and why form the basis of the section on equipment, which includes boots, bindings, skis, ski poles and ski clothing.

The section on first aid for skiing accidents contains a list of necessary first aid supplies and instructions for the care of wounds, frostbite, sprains and various other injuries and for splinting and transportation. Diagrams and line illustrations of improvised splints and ski toboggans accompany explicit directions for making and using these aids to safe transportation of the injured.

A few paragraphs on skiing conduct give the "rules of the road" and emphasize pertinent points which it is well for both amateur and professional to observe.

Since the rules of good sense and good sportsmanship are applicable to all athletic pursuits, this compact, informative booklet will prove interesting and valuable to all lovers of sport.

LEOLA J. HARRIS.

## ARTHRITIS AND RHEUMATIC DISEASE

By Maurice F. Lautman, M.D., with a foreword by Morris Fishbein, M.D. Cloth. Price, $2. Pp. 177. New York: Whittlesey House, 1936.

BETWEEN 2 and 3 million Americans are afflicted with some form of arthritis, and every one of them would like to know as much about their disease as possible. Because the exact cause of many forms of arthritis is not yet known, it is often difficult for physicians to answer the numerous questions their arthritic patients propound. On every new day of pain the victim repeats the old and originates some new questions: "Just what is the cause of arthritis anyhow? How did I get it? Will my family catch it, and will my children inherit it? In addition to what my doctor is doing for me, what can I do to help myself?" These and many other questions Dr. Lautman has attempted to answer in simple language that laymen can readily understand. Chapters include those headed "What Is Arthritis?" "What Causes Arthritis?" "The Symptoms of Arthritis and the Relation of Diet to the Disease" and "The Mental Aspects of Arthritis." Chapters on the treatment of arthritis include discussions of rest, diet, massage and exercises, heat, hydrotherapy, vaccines, care of the intestines, the relation of climate to arthritis and the prevention of arthritis. Perhaps the most helpful chapter is that on the relation of the arthritic patient to his physician and the cooperation each must expect from the other.

There is no rapid "sure cure" for arthritis, as Dr. Morris Fishbein, Editor of *The Journal of the American Medical Association*, points out in the foreword of the book, but the arthritic patient can help his physician and himself greatly by intelligent cooperation. The patient must, to a certain extent, learn to live with his disease for a while in order finally to stop it, and the knowledge that this book provides will help him to do this and will save thousands of dollars for those who constantly seek quick cures.

P. S. HENCH, M.D.

## THEORY AND PRACTICE OF PSYCHIATRY

By William S. Sadler, M.D. Cloth. Price, $10. Pp. 1231. St. Louis: C. V. Mosby Company, 1936.

THE author directs this tome to neuropsychiatric specialists, general practitioners, psychologists, sociologists, pastors and professional readers. It is no wonder that a work intended for so large an audience should contain such diverse material. Almost everything under the sun relating to psychiatry is included; however, it does not always convey the correct connotation and is often inaccurate. The nonmedical reader will obtain little of theoretical understanding or of practical knowledge from his perusal of this book, large though the work may be.

The author exhibits a bias in his therapeutic approach in that he avoids deeper psychologic understanding and clings to socially ethical and moral values in so-called adjustments. He therefore does not uncover fundamental motivation but instead hides it by increasing the forces of social rewards and punishments catalyzed by his personal relationship with the patient. In this respect Sadler's therapy and point of view will please only the pastors among his readers.

ROY R. GRINKER, M.D.

## SLIM AND SUPPLE

By Barbro Leffler-Egnell. Price, $2. Pp. 209. New York: D. Appleton-Century Company, 1936.

TEACHERS of physical education, those who wish to have a symmetrically developed body, graceful carriage and posture and also those who would reduce their weight will be interested in this book. It presents a new system of Swedish exercises for young and old. The directions are explicit, and every exercise is illustrated with pictures. The course is designed to include the exercise of every portion of the body. The author is a Swedish authority on gymnastics.

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Each year another two million American mothers face this serious question: "What first solid food shall I feed my baby?" The right answer is important because . . .

**A wrong first solid food can easily bring on loss of weight, lowered vitality and dangerous upsets.**

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So we urge you, mother, at first solid food time consult your doctor! He knows infants . . . their needs . . . and how delicate their small, untried digestive systems can be.

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**★ Cream of Wheat is rich in a type of carbohydrate second only to sugar in speed and completeness of assimilation.**

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**★ Doesn't tax digestions. Even delicate young systems handle Cream of Wheat with ease.**

**Important:** The Council on Foods of the American Medical Association has awarded to Cream of Wheat the "Seal of Acceptance". This officially indicates that this famous hot cereal and the advertising for it are acceptable to the Council.

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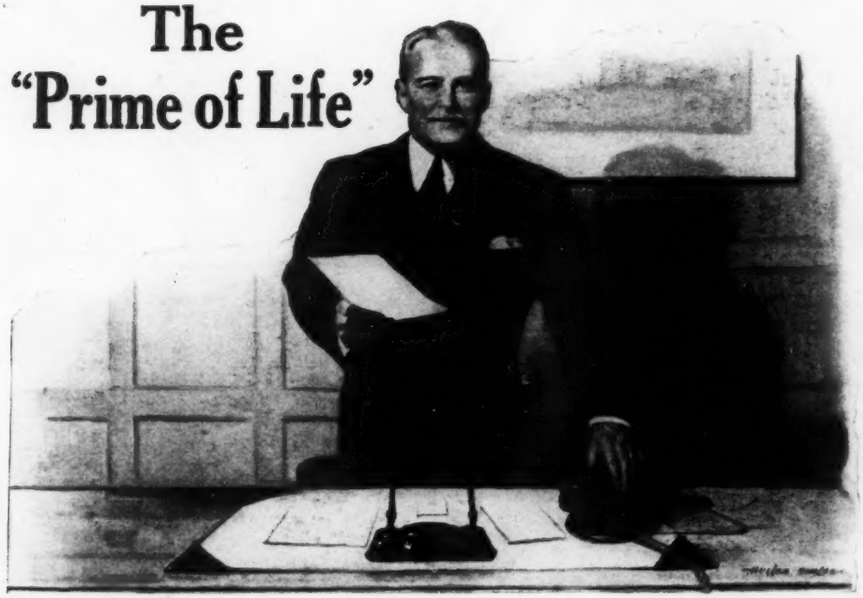
HEY, MOM, HOW ABOUT IT? WHERE'S THAT CREAM OF WHEAT THE DOCTOR ORDERED?
GUESS I'LL HAVE TO ACT CUTE TO GET ATTENTION. MAYBE THIS WILL HELP. YOO-HOO ... I WANT CREAM OF WHEAT!
HA-HA, THIS DIAPER WAVING NEVER FAILS! HERE COMES MOMMY. NOW FOR SOME YUMMY CREAM OF WHEAT!

# The "Prime of Life"



You may have read that the average length of life has risen from 49 to more than 60 years since the beginning of the century. You may not know that the greater part of this extension in the length of life from birth is due to gains in mortality at the younger ages. For those who have passed 40, conditions are much the same as they were.

The period from 40 to 60 years should be the "prime of life" when mental powers are high.

The majority of the deaths which occur in this period are caused by chronic diseases of the heart and arteries, Bright's disease, cerebral hemorrhage, cancer or diabetes. Of these, heart disease is responsible for more deaths than any other cause.

While your doctor will not offer any medicine to soften arteries that are becoming brittle, or to rebuild your heart, he can do a great deal to help you to lengthen your own life. He can do what you can't—he can, almost literally, look inside your body.

With the fluoroscope and X-ray, with chemical and other function tests he can observe your vital organs in action and can tell you their strength or weakness.

Unselfish men and women who try to give all they can to their families or their work, and people who are ambitious to reach a certain goal often neglect their health. Chronic invalids are more likely to seek medical advice and to follow it faithfully than are vigorous men and women who scoff at being coddled, and who often race past physical danger signs.

A great scientist said recently, "We know how to lengthen the lives of our children. We must learn how to persuade people past 40 to get the benefit of what modern science can do for those of their age."

To everyone interested in prolonging life, the Metropolitan Life Insurance Company will gladly send its booklet, "Taking Your Bearings." Address Booklet Dept. 337-Z.

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LEROY A. LINCOLN
President

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## *LIVE WITH HEART DISEASE AND LIKE IT*

*(Continued from page 223)*

of Manhattan. She feels companioned by the sweep-sweep-sweep of the janitor across the street or the tinny clatter of the rough and ready, "wise-cracking," hail-fellow-well-met collectors of garbage, as they toss to the trucks (often, alas! with faulty aim) the myriad sardine and tomato cans of the sleeping world around her. She considers it the equal of a jazz symphony, and her diary gets the best of it.

She also tries this out in the country for there the birds wake her up just as early; here nature affords her a more classic symphony. There is often a beautiful silence; then comes the ecstatic crowing of the cocks, the croo-croo-croo of the mourning dove, the coloratura trills of the bird chorus, the ugh-ugh of the pigs, the wailing moo of a cow bereft of its calf, or suddenly the sharp bark of a dog—and finally breakfast is served! She has confounded insomnia.

The radio often gives tabloid versions of courage in adversity. Stan Lomax painted a glowing picture one evening of baseball heroes. A boy's leg had been peppered with bullets, but in two years through pluck and exercise he was back in shape for big league baseball. Another baseball hero he cited had been the victim of an automobile accident which took three fingers of his important hand, but as he would not admit hints that he was a "has-been," he went back and made good.

The physician familiar with such examples of courage as these is often able to instil in his patients with heart disease the same sort of courage that will enable them to carry on when faced with the question of a physical ailment that restricts.

A young college student whose weak heart restricted his activities made a study of the movements of the various ocean-going steamers. Who knows what far flung value may result to him through his interest in navigation? At least such an interest will take the mind of the invalid from dwelling on the vagaries of his pulse or worrying about the stock market.

An accident condemned an unfortunate man to a lifetime in bed. But he could sit up and operate a typewriter. He has kept his grip on things by selling Christmas cards and taking subscriptions to magazines. Incidentally he has built up

a nice little business for himself and is one of the cheeriest persons imaginable.

Recumbent activities, however, should not be taken up with the idea of remaining flattened out. Those who progress to the point of sitting up or of using a wheelchair can make scrapbooks or do painting, illuminating, leather tooling, knitting or woodcarving. Then, too, when one is sitting up there is less fatigue of the back muscles than when one is trying to do things in a recumbent position. There are many other activities that have been carried on by invalids, such as pheasant raising, designing advertising layouts and even conducting a successful financial advisory service. A cherished collection of books may be added to while in bed, for others can bring the missing tome, and new interest is derived from each accession. If space is limited for book collecting, consider well whether a book is worth rereading; if not, cast it out. In that way you will soon have a collection of gems.

This period of enforced leisure may often be a blessing in disguise. It is a good time to read up on the various phases of living that are crowded out in the pursuit of a career. Sometimes a new idea is born that may point the invalid's way to an easier, or at least a different, way of earning his living, which is more compatible with his heart weakness than was his former life work.

*(To be continued)*

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## SAMUEL MUDD—INNOCENT OR GUILTY?

### A Letter from a Reader

Worcester, Mass.

To the Editor of Hygeia:

An article by Annette Fiske entitled, "His Name Was Mudd," calls attention to the case of Dr. Mudd and speaks of his kindly services to an unrecognized assassin.

Was Dr. Mudd the innocent country doctor who unsuspectingly attended to Booth and sent him on his way?

Why did Booth go to him thirty miles away from the scene in the theater? Jeremiah Dyer testified that Dr. Mudd lived on no direct road to the river which Booth wished to and did cross. Dr. Mudd knew Booth and had known him for months. John C. Thompson testified at the trial that he introduced Booth to Mudd at the Bryans-


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He enjoys work in "*Posture Pal*" . . . likes to use the desk top . . . the reading rest . . . the seat swivel . . . they all work so smoothly and quietly.

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town Church, 2 miles from Mudd's home, in November 1864. Louis J. Weichman testified that on Jan. 15, 1865, three months before the murder, he was with John Surratt in Washington, that they met Booth and Mudd, who were together, that Mudd introduced Booth to him and that all four went to Booth's room.

Mudd, with Booth in the house, rode into Bryanstown, where everybody was talking about the murder and which was full of soldiers hunting for Booth. John Ward, F. Bloyce and Mrs. Bloyce saw him there and so testified, and Dr. Bean swore that he was in his store while the matter was talked about. Meanwhile, Booth had borrowed Dr. Mudd's razor to shave off his mustache. O, unsuspicious Dr. Mudd!

Various individuals testified that Mudd, years before, had predicted Lincoln's early death. William A. Evans testified that he saw Dr. Mudd enter Mrs. Surratt's house in Washington on March 1st. At this house the conspirators met and she was one of those executed for the murder. Marcus P. Norton, a lawyer, testified that on March 3, 1865, an excited man ran into his room at the National Hotel and said he was looking for Mr. Booth. This man he identified as Dr. Mudd. Mudd's brother-in-law, Dr. William J. Bowman, testified that Mudd told him that Booth intended to buy his farm. Thomas J. Gardner testified that Booth and Dr. Mudd came together to his home one quarter of a mile from Mudd's place and bought of him a horse. Yet Mudd did not recognize Booth when he came to him on that Saturday morning.

If, after the terrible treatment in Fort Jefferson in chains, unbearable heat, without sleep and practically no food, he was able to nurse yellow fever patients eighteen hours a day, he must have been the modern Samson. As a matter of fact, the relief surgeon came and took charge before the fortress surgeon died.

Time after time during the past year the story of Dr. Mudd and his so-called unjust conviction has appeared in print. Why not read the story of the trial of this man whom Booth certainly knew and had known for months, who knew that the authorities were after him, who protected him, lent him his razor to change his appearance and went with him for some distance toward the south as his guide. I see no injustice in his imprisonment.

Sincerely,

SAMUEL B. WOODWARD, M.D.

Feb. 5, 1937.


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For boys and girls ten years of age, telling them how the young come to plants, cold-blooded animals, domestic animals, and human parents.

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For boys of high school age, interpreting their adolescent development in terms of athletic and other achievements which they can understand and admire.

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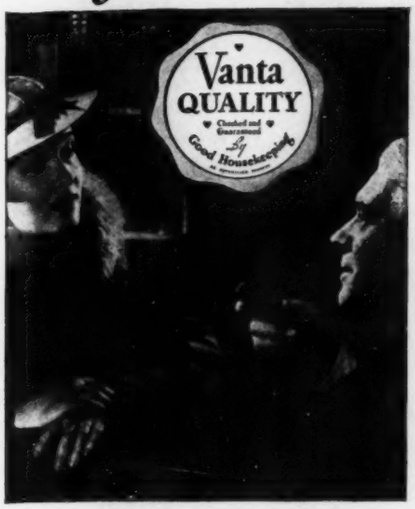


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## CHICAGO TO TEACH MOTORISTS TO DRIVE

Plans are under way to open a school to teach the motorists of Chicago how to drive safely and properly, it was announced in *Public Safety* magazine recently. Next summer the Chicago Park District will combine the theoretical and the practical in instruction by giving classroom lessons and practice technic on a specially devised course of roadways that will include virtually every known hazard that the driver must face on the streets and highways.

Any person over 16 years old will be eligible to attend the driving school without charge. Certificates of graduation will be presented to persons completing the course. Automobiles will be available for those not owning them.

The faculty of the school has not yet been selected, but its personnel will consist of traffic safety experts well versed in all the problems which the driver must face.

Beginning drivers will learn the art of operating an automobile on a field covering several acres of ground. On this field will be approximately 3 miles of roadway which will include a 2,650 foot high-speed road, hills, curves, a traffic circle, a service station "pull-in," parking areas, a railroad crossing, a beginners' driving field and other features to test the potential driver's ability.

The course will consist of from sixteen to twenty one-hour periods of instruction, depending on the individual driver's ability to progress. The classroom lessons will acquaint the student with proper operation of a car.

Devices to test the driver's perception and reaction time and his ability to react to the hazards of driving by night and in fog and rain will be part of the school's equipment. A vehicle inspection station will also be set up.

In addition to the driving school the Chicago commissioners plan to have a building in which will be housed exhibits depicting the development of automotive engineering and traffic engineering since its recognition as a profession. The building will also house testing laboratories, a traffic and safety engineering library and an auditorium in which will be staged events pertaining to accident prevention.

---

We should be careful of the books we read as of the company we keep. The dead very often have more power than the living.

—*Tryon Edwards.*


# WHAT *Do You* KNOW *About your Child's feet*

**Do you know that it takes from 10 to 20 years for foot bones to completely harden? Do you know that just one pair of poorly made or poorly fitted shoes in this formative period can cause a lifetime of discomfort?**

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## *MISS FANNY'S TEA ROOM*

*(Continued from page 245)*

*right.)* I'm sure Miss Fanny will be here in a moment.

DR. MACON: Thanks. To continue the story, Van—this girl and I worked for weeks on that case.

MRS. VANCE: Excuse me a moment, please. *(She rushes over to Cunningham table.)* You really *must* meet Dr. Macon. He is *most* charming! And he's so *famous* too! He and Waldo were classmates in college. *Do* come over and meet him!

(ELLEN *gives menu to* MR. VANCE *and* DR. MACON *and waits for their order.*)

DR. MACON: I'm tempted by that pie, but I am rather particular about crusts.

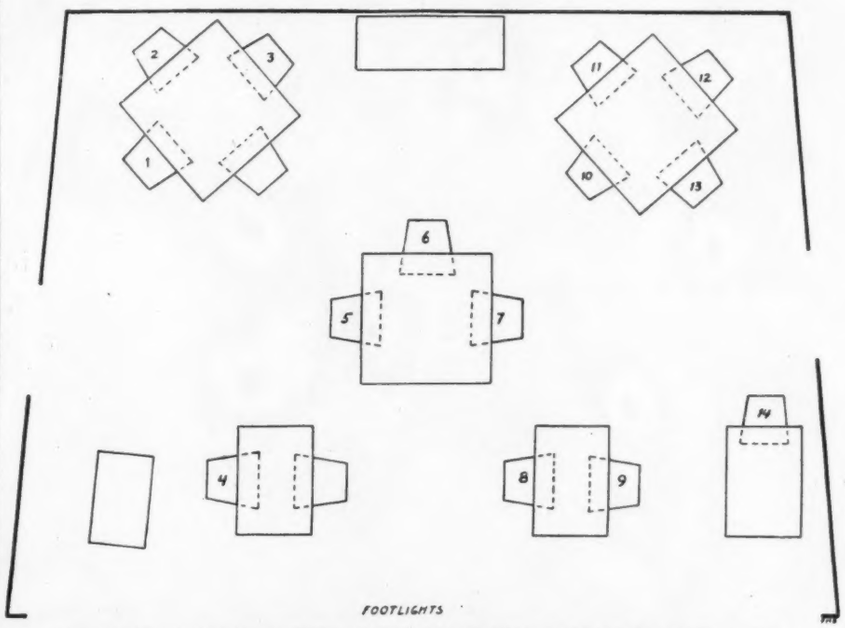
MR. VANCE: It will suit even you, Mac!

DR. MACON: Then I'll have the pie.

MRS. VANCE: Soup should begin *every meal,* the French say, and Miss Fanny is simply *wonderful* with soups.

DR. MACON *(smiling):* Then I'll have cream of mushroom.

(DR. MACON, MR. *and* MRS. VANCE *continue to order in pantomime. Enter* MISS FANNY *with a small candy box.*)




THE SEATING ARRANGEMENTS ON THE STAGE SHOULD BE AS FOLLOWS: 1, MR. CUNNINGHAM; 2, ELIZABETH; 3, MRS. CUNNINGHAM; 4, MR. COLE; 5, MR. VANCE; 6, MR. HENRY; 6, MRS. VANCE; 7, DR. MACON; 8, MRS. DAWSON; 9, MR. DAWSON; 10, MR. COOPER; 11, JIMMY; 12, JANE; 13, MRS. COOPER, AND 14, MR. DAWSON.

MRS. CUNNINGHAM: A little later, Dorothea. We can meet him when we go out.

MRS. VANCE: I'm having a *tea* for him Sunday evening. Wouldn't you like to come?

MRS. CUNNINGHAM: It's nice of you to ask us, Dorothea, but we really must say no—previous engagement, you know.

MRS. VANCE *(haughtily):* Sorry. He's worth knowing. *(She is very dignified as she returns to her own place.)* Now, Dr. Macon, you will find the food here *simply marvelous.* Anything you order will be *perfect.*

MR. VANCE: Every word of that is true, Mac. The food here is better than at home.

MISS FANNY: Now, Jimmy, I have something for you that all boys who eat their vegetables as you did this evening should have for dessert.

JIMMY: What is it?

JANE: I ate mine too.

(*Exit* ELLEN.)

MISS FANNY: Yes, this box is for you too. You are to divide it between you. *(She puts the box on the table, and they scramble to open it while she watches them, smiling.)*

MR. COOPER: Hey—wait a minute! Somebody's going to be killed in the rush!

JIMMY AND JANE *(together):* Oh, thank you, Miss Fanny. *(They*

*sample the candy.)* H-m-m-mm! That's good!

MRS. COOPER *(smiling):* I'm surprised at you, Miss Fanny. I thought candy was bad for children.

MISS FANNY: Mercy, no! Children need sweets for energy. Of course, they should have it after a meal. Nibbling it all day long *is* bad for them, for then they have no appetite for other important foods.

*(Enter* ELLEN *to serve the Dawsons. The* COOPERS *rise to go.* MR. COOPER *pays check at desk, and good nights are said. Exit* COOPERS. *As* MISS FANNY *turns back into the room,* DR. MACON *sees her for the first time and rises. He goes to her.)*

DR. MACON: Fanny Fosdick!

MISS FANNY *(gasping):* Dr. Macon! Why—Dr. Macon!

DR. MACON *(holding her hand in both of his):* So this is the hole you dug for yourself!

MISS FANNY: I took your advice, you see.

DR. MACON: I don't see!

MISS FANNY: You told me to rest a while and then go and carve me a thoroughly selfish life.

DR. MACON: For a change!

MISS FANNY *(smiling):* Come to think of it, I guess you did add that!

DR. MACON: And you replied pertly you'd rather crawl into a hole and pull it in after you!

*(They both laugh. It is apparent they admire each other.* ELLEN *clears Cooper table and exits.)*

MISS FANNY: One of your triumphs is here. *(She beckons* MR. COLE, *who rises.)*

MR. COLE *(shaking hands with Dr. Macon):* How are you, Doctor? You probably don't remember me.

DR. MACON *(studying him intently for a moment):* Oh, don't I? You're the fellow who got my goat! I can't understand yet why I didn't think of garlic before anything else. You positively reeked of it! But it took this girl to think of it.

*(They converse in pantomime.* ELLEN *enters to serve the Vance table.)*

MRS. VANCE *(flourishing over to Dawson table):* Good evening! *(To Mabel)* My *dear,* I have some *amazing* news for you! Dr. Macon, that *very famous* physician from Baltimore—you've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heard of him, I'm *sure—(both* DAWSONS *nod politely)* well, he is a classmate of Waldo's, and he's staying with us this week. Won't you let him do something for you, my dear?

MABEL *(sadly):* I'm beginning to think nobody can help me.

MRS. VANCE: But Dr. Macon is so well known for his work.

MABEL: We probably couldn't afford to pay his prices.

GEORGE: Nonsense, Mabel. If you feel any desire to consult him I'll pay the bill.

MABEL: No—no, it's no use, I'm afraid. But thank you, Mrs. Vance.

MRS. VANCE: At least, come over and meet him Sunday evening. I'm giving a tea.

(DR. MACON *sits;* MR. COLE *pays his check and exits. Exit* ELLEN. MISS FANNY *busies herself at desk.*)

MABEL: That's very kind of you, Mrs. Vance. It will depend on the state of my health whether we can accept. Thank you so much.

(MRS. VANCE *returns to her table.*)

GEORGE: Perhaps it would be a good idea to consult Dr. Macon, Mabel.

MABEL: George, you eat as if eating were the chief aim of existence!

GEORGE *(looks cross but says mildly):* It's a very pleasant part of it, at least!

MABEL: Your enjoyment of food is positively revolting to me!

GEORGE *(angrily):* And it spoils *my* good dinner to watch you nibbling at that rabbit food! I'm all aquiver expecting your nose to start wiggling! *(He gathers up his napkin, plate, glass and cutlery; drops his napkin; has to put everything down to pick it up; gathers everything up again, and stalks to small table at extreme left to eat.)*

MABEL *(wailing):* George Dawson, aren't you ashamed to make a spectacle of yourself!

*(The other diners stop eating to watch them.)*

GEORGE: You're the spectacle! If I'm one it's because you have driven me to it!

(MABEL *weeps dramatically.*)

MRS. CUNNINGHAM: The brute! I just can't stand him! He is so *mean* to that poor little woman.

ELIZABETH: Maybe he has his reasons, Mother. She doesn't look any too sweet to me.


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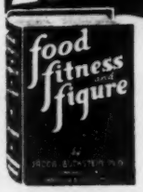


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MRS. CUNNINGHAM: My dear, I'm sorry to hear you make so uncharitable a remark. She is a sick woman—just look at her!

ELIZABETH: Your remark about him wasn't so charitable either, Mother. I can't help but feel there are two sides to that affair!

(MISS FANNY *takes chair vacated by George.*)

MISS FANNY *(sympathetically):* My dear—

MABEL: Please don't *pity* me—

MISS FANNY: I want to help you. *(She speaks quietly, giving the audience the impression of a tête-a-tête. The others return reluctantly to their eating.)*

MABEL *(wailing softly):* George just hates me, Miss Fanny.

MISS FANNY: I don't believe that, dear. George isn't like that.

MABEL: He's cross because I'm sick —and I can't help that, can I?

MISS FANNY *(gently):* I believe you can!

MABEL *(rising angrily):* Are you implying it's my fault George hates me? (GEORGE *stops eating to watch them.*)

MISS FANNY *(still gently):* I think your unhappiness is your own fault to a large extent.

MABEL *(stamping her foot and speaking loudly, so that other diners become interested again):* Why, how dare you! You're being impudent and— *(She faints)*

GEORGE *(rushing over to pick her up and glaring at Miss Fanny):* Whatever did you say to her, Fanny?

MISS FANNY *(calmly):* Better bring her upstairs, George.

(*Exit* MISS FANNY, *followed by* GEORGE, *carrying* MABEL.)

MRS. CUNNINGHAM: Well, I'm glad to see he feels *some* responsibility for his poor little wife!

ELIZABETH *(softly):* Are you, Mother?

MRS. VANCE: Hers is a *pitiful* case, Dr. Macon. She has been in ill health for *more than a year.* Our Dr. Arnold seems *unable* to help her. It's her *stomach* apparently. I'm sure *you* could help her.

DR. MACON *(smiling):* Perhaps not. Anyway, I haven't been asked.

MRS. VANCE: But you do such *wonderful* things for people, Doctor!

DR. MACON: Not unless I can get the cooperation of the patient. All the knowledge I may possess won't help the patient unless he works hand-in-hand with me. It's a partnership, you know—this practice of medicine.

(*Enter* MISS FANNY; *goes swiftly to* DR. MACON.)

MISS FANNY: Dr. Macon, I'd appreciate it if you would come upstairs.

DR. MACON: Of course I will, Fanny.

(*Exit* MISS FANNY *and* DR. MACON.)

MRS. VANCE: Now, *wasn't* that *sensible* of Fanny?

MR. VANCE: She's a pretty level-headed woman!

MRS. VANCE *(turning to Mrs. Cunningham):* I'm *so* glad Fanny wants *Dr. Macon* to see that *poor* little thing.

MRS. CUNNINGHAM: It's time something was done! Her *husband* wouldn't do anything!

ELIZABETH: Mother, you don't *know* that!

MRS. CUNNINGHAM: I know you are rather impertinent, Elizabeth. Is that what college is doing for you?

ELIZABETH: Mr. Dawson looks like a decent sort to me, Mother. What do you really know about them?

MRS. CUNNINGHAM: I've heard he nags her all the time—that poor, sick thing! Does that sound very decent to you?

ELIZABETH: In a town this size you can *hear* almost anything! Who told you that?

MRS. CUNNINGHAM *(vaguely):* I don't recall at the moment.

MRS. VANCE *(gushing):* Well, Mrs. Dawson is in *perfectly marvelous* hands *now.*

MR. VANCE: You know Dawson has changed in the last year. He used to be such a pleasant chap. Lately, he's been so irritable. Probably worried.

*(Enter* MISS FANNY *and* GEORGE. *His shoulders droop, his feet drag, he is a picture of dejection.)*

MISS FANNY *(comfortingly):* There, there, George—she isn't going to die. You yourself said just this evening Dr. Arnold didn't find anything but malnutrition.

GEORGE: I know, Fanny. But I've been through hell, watching her losing ground day by day, and being unable to do anything about it. At first I just laughed at her fads. But then I saw what they were doing to her—and she just

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wouldn't listen—I've felt so helpless—

MISS FANNY *(steps to door, left, and calls):* Ellen dear, will you get Mr. Dawson some hot, black coffee?

GEORGE: Fanny, promise me you'll do everything you can to make her see—

MISS FANNY *(firmly):* I'll make her see that she not only has wrecked her health but has come close to wrecking you and your business. It's time somebody told her the truth quite plainly. *(Exit.)*

MR. VANCE: How's your wife, George?

GEORGE: She came out of her faint right away, but I'm afraid she's in pretty serious shape. I'm relieved she's going to have a doctor.

*(Enter* ELLEN, *to serve George's coffee.)*

ELIZABETH *(aside to her mother):* I told you it wasn't his fault!

MRS. CUNNINGHAM: I believe you're being romantic over a married man.

MRS. VANCE: Isn't it *wonderful* Dr. Macon happened to be here?

GEORGE: Yes, but I believe if she had followed Dr. Arnold's advice months ago she wouldn't have needed Dr. Macon.

MRS. CUNNINGHAM: Probably he didn't help her.

*(Exit* ELLEN.)

GEORGE: She never gave him a chance. She's been just crazy over one fad after another.

ELIZABETH *(aside to her mother):* There, Mother!

*(Enter* DR. MACON.)

DR. MACON *(aside to George):* You say, Mr. Dawson, that Dr. Arnold found nothing organically wrong with your wife?

GEORGE: No. His diagnosis was malnutrition.

DR. MACON: Then don't worry. I am convinced starvation caused her fainting this evening after what she told me. Fanny scolded her properly. *(Smiles.)* I had no idea Fanny had it in her! Mrs. Dawson promised both of us she would follow Dr. Arnold's advice to the letter and let the food fads alone. I believe she is thoroughly frightened now and will keep her promise.

GEORGE: Oh, thank you, Doctor. As soon as she's well enough I'll bring her to you for a checking over.

DR. MACON: That won't be necessary. Arnold can do all that is required.

*(Enter* MISS FANNY, *half supporting* MABEL. GEORGE *rushes to take* MABEL *in his arms.)*

MABEL *(penitently):* Darling, *can* you forgive me? I'll never worry you again. I'll do everything Dr. Arnold tells me to and get well so we can be happy again.

GEORGE *(holding her close):* Then I'm happy right now, sweetheart. Let's go home and call Dr. Arnold right away. *(He leads her gently toward door, right.* ELIZABETH *whispers to her mother.)*

CURTAIN

[AUTHOR'S SUGGESTIONS: Ellen must be chosen carefully; her movements are so necessary to the action of the play, and yet she must know when to "take the stage" and when to be inconspicuous. Miss Fanny too must be chosen carefully; she must know when to move decisively and when quietly.

The actors should have food to eat but must be careful to have mouths empty in time to speak their lines clearly.]

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## *SCHOOL AND HEALTH*

*(Continued from page 270)*

Among them will be movies and late radio programs. Explain that sleep is more valuable than movies or radio programs. Children's programs are on early in evening.

Suggest reading a book in the evening which can be laid aside at bedtime.

Impress the fact that children should go to bed without being told to do so since they know they need sufficient rest to be strong and healthy. A strong healthy body is a thing of pride and should be sought by every child.

Point out that those who have had a good night's sleep rise promptly and feel refreshed. Those who have too little sleep are often "tag alongs."

### Objective II

Arrange sleeping conditions in such a way that sleep is most restful and beneficial.

Some nights' sleep is of more value than others'. Get a good night's rest by observing these rules:

1. Wear no "day clothing" to bed.
   a. Clothing should be hung up so air can blow through.
   b. Night clothing should be loose with no tight bands.
2. Adjust bed clothing to weather.
   a. Demonstration: Use doll bed and covers to show proper amount of bed clothing for warm and for cold weather; also for proper making of bed.
3. Use only low pillow.
   a. Body should lie straight and not cramped for we grow while we sleep. Demonstrate position.
4. Adjust window in accordance with weather.
   a. Demonstration with classroom windows of how to open for cold, warm and windy nights.
5. Sleep in darkened room.
   a. Deeper sleep results from darkened room.
6. Read or play quiet game before bedtime to slow down body processes.

While this study was in progress the principal invited parents to a meeting to discuss the sleep and rest project. The parents were happy to report that children felt the responsibility of retiring early without being urged to do so. This did away with unpleasant nagging about the bedtime hour. Clothing was being hung up rather than left in a heap on the floor.

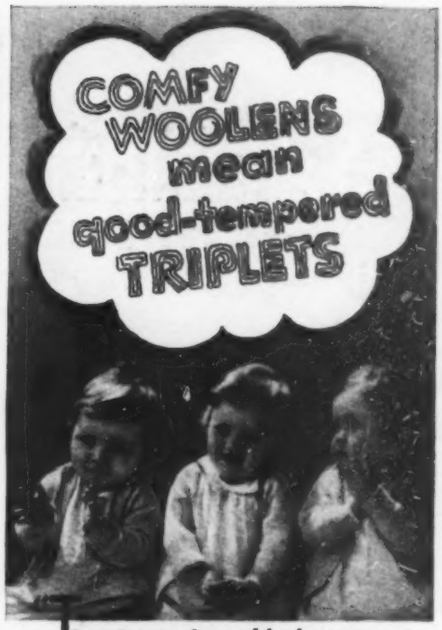
In the course of the meeting, radio programs were discussed as to which were beneficial to children and which were not beneficial. Parents agreed to help children choose the best in programs.

Children's attendance at movies was another point brought up in the meeting. Parents decided it might be wise to request suitable pictures for children at a neighborhood theater which children attend. No movies were to be attended on school nights.

As a result of this meeting, parents became better acquainted with health education in the school and were most anxious to cooperate with the principal and classroom teacher.

### Correlation of Sleep and Rest Unit

1. Arithmetic — Make individual weight graphs.
2. Reading—"Land of Health," page 123. Title "In the Garden of Sleep."
3. English—Compositions, "Quiet Games Before Bedtime" and "Why I Need Sleep." Suggest Stevenson's poem, "Young Night's Thought."
4. Writing—Compositions and poem.

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On March 12 specifically and during the year of 1937 generally, the Girl Scouts will celebrate their twenty-fifth anniversary. Nearly 400,000 members of the organization will set aside this day for celebration; in addition, the date of October 31 will be given special emphasis for that is the birthday anniversary of their founder, Mrs. Julliette Gordon Low.

This organization has grown from a group of eleven girls in Savannah, Ga., to a nation-wide membership of nearly half a million. They have 350 permanent camps; over 400 "Little Houses"; about 800 local councils; large national headquarters with a professional traveling staff of advisers and trainers; a magazine of their own, *The American Girl;* various smaller publications, and their own equipment service.

Of particular benefit has been the constant emphasis which the Girl Scouts have laid on health and health standards. In all the Scout activities the importance of individual and general health is stressed. Throughout her Girl Scout experiences each girl is made to feel the importance of enough sleep and outdoor exercise, of diet and cleanliness. When she goes to camp she sees how carefully the location, equipment and management are arranged to insure health and safety, and she takes active part in carrying out the application of health and safety standards. When she cooks with her patrol she learns sane dietary considerations; when she takes up an athletic activity such as swimming or life saving she not only knows but understands the requirements and importance of the necessary physical examination as well as the proper care of her general health.

Not only in camp but in the everyday activities of her troop she learns and applies health methods. She may learn child care or home nursing and use that skill in assisting the district nurse in her rounds or in the local baby clinic.

All these interests and activities make for a more health conscious, carefully run community. The education of the women of tomorrow in these ways is of deep importance to the future. The abiding purpose of the organization is to give the girls of America the finest things that life can offer in experience, character and outlook. The Girl Scouts and their leaders are carrying on a valuable work as a detachment in the general crusade for health in America.

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## ALLERGY IS NOT PROVED HEREDITARY

The prevailing concept that the allergic diseases are inherited was denied by Dr. Bret Ratner, clinical professor of children's diseases at the New York University College of Medicine in a paper presented before the Association for the Study of Allergy at its fourteenth annual meeting in Kansas City.

His conclusions, based on investigations covering a period of fifteen years, indicate that susceptibility to allergic diseases is not transmitted through germ plasm, or the genes, which are the carriers of hereditary traits.

From 7 to 10 per cent of the total general population are afflicted. Dr. Ratner's observations also show that only rarely is there a so-called allergic family in which a large proportion of the members are allergic. About 50 per cent of the families, both of allergic and normal children, show no allergy in their lineage. There was found to be an average of 2.5 members per family suffering from allergy. No conformity with the simple mendelian laws of inheritance in allergic case histories was found.

Dr. Ratner and his co-workers also demonstrated that a child may become sensitized in the uterus of the mother as a result of undigested food entering her circulation and thence traversing the highly permeable placenta, thus invading the fetal circulation. Children manifesting allergic symptoms on first contact with a new food have not necessarily inherited such an intolerance but may have acquired their allergic state congenitally.

The hope held out by these studies is that so far as susceptibility to allergic diseases is not proved to be inherited through germ plasm, proper preventive measures can be instituted to control and to a large extent eradicate this common ailment which is present in every tenth person.

*—The Scientific Monthly.*

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In the United States, eye accidents in industry cost approximately $50,000,000 last year.

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In the health of the people lies the strength of the nation.

*—Gladstone.*

# ACCEPTED FOODS

This department is a useful guide in the selection of foods of quality, advertised with truthful claims. All products in this section as well as any others advertised elsewhere in HYGEIA stand accepted by the Council on Foods of the American Medical Association, and are entitled to bear its "Seal of Acceptance." The foods listed here are but a portion of those accepted by the Council. If you desire information regarding any other food product, you are invited to write to HYGEIA.

**VAN CAMP'S Evaporated Milk**

Pure Cow's Milk with more than half the water removed by evaporation. Sterilized, Homogenized. Uniformly High in Quality.

VAN CAMP MILK CO. Indianapolis, Indiana

**THIS TOMATO JUICE IS NEVER THIN OR WATERY**

Always drink Kemp's Sun-Rayed—the pure, undiluted juice of WHOLE tomatoes. Delicious. The Sun-Rayed Co., Frankfort, Indiana.

**WHITE BREAD**

An interesting set of questions and answers in booklet form. A copy may be obtained free by request to the

AMERICAN INSTITUTE OF BAKING
1135 Fullerton Avenue . . . . Chicago

**Golden State EVAPORATED MILK**

*California's own brand*

Golden State Company, Ltd.
SAN FRANCISCO — LOS ANGELES

*Dated for Freshness.*

**A Free Recipe Book**

Write for the free "Junket" Recipe Book—61 new, easily digested rennet-custard desserts and ice creams. Mail request to "The 'Junket' Folks," Chr. Hansen's Laboratory, Inc., Dept. 333, Little Falls, New York. See further details page 286.

**A GOOD MILK FOR THE BABY**

A&P FOOD STORES

● Ask your family doctor about White House Brand Evaporated Milk for baby's feeding formula. And use it in cooking—wherever your recipes call for milk. See page 287 for details.

SOLD BY A & P STORES


## Do You Know—

1. When diphtheria antitoxin was first placed on the market? *See page 249.*
2. What is the origin of the term "syphilis"? *See page 216.*
3. How a "dimple machine" would work? *See page 238.*
4. What is man's duty to the animal kingdom? *See page 210.*
5. What is the story of the invention of the stethoscope and who invented it? *See page 230.*
6. What is one of the appliances with which the campaign against cancer is now working? *See page 234.*
7. What sort of exercises to take if one shoulder is higher than the other? *See page 208.*
8. What is the approximate number of drivers under the age of 18 who were involved in fatal accidents in the year 1935? *See page 213.*
9. What are "refrigerating lenses" and are they approved by the medical profession? *See page 271.*
10. What is the difference between antitoxin, toxin-antitoxin and toxoid? *See page 205.*
11. Since what approximate date the science of bacteriology has developed? *See page 242.*
12. What the physical treatment of arthritis embraces? *See page 252.*
13. What are some of the things a bedridden person can do to occupy his time? *See page 220.*
14. What were the essentials in the discovery of color blindness? *See page 207.*
15. What is the Collier Moral Code for Youth and who published it? *See page 246.*


**Dr. Phillips CITRUS FRUIT JUICES**

**Recommended for Children**

*as a Source of Vitamins A, B and C*

Dr. Phillips Orange and Grapefruit Juices and Grapefruit Hearts are uniformly rich in vitamin C and always full of flavor. Tree-ripened, they are canned fresh from the grove under the most modern scientific and sanitary conditions. Easy to serve at any time, anywhere. Get several cans today.

DR. P. PHILLIPS CO., Orlando, Florida

**A new SOURCE OF good GINGER ALE**

MADE WITH

**CLOVERDALE**

...water SPARKLING!

Admittedly, water is the chief ingredient in any beverage. The use of Cloverdale Sparkling Spring Water gives Cloverdale Ginger Ale a distinctive zest and sparkle. You will enjoy it. Also Cloverdale Sarsaparilla, bottled at spring.

If not available in your community, write for information

CLOVERDALE Spring Co.
Office: Baltimore, Md.
Plant: Newville, Pa.

FROM THE LOFTY BLUE RIDGE MTS.

**WHOLESOME! DELICIOUS! Durkee's**

Ask Your Grocer for Durkee's Margarine

Purely American Vegetable Margarine, an "All-American" product, is nutritious, satisfying, an ideal food for cooking, baking, frying and general table use.

Durkee Famous Foods
Chicago, Ill. Norwalk, Ohio

**Try Heinz Double-Sure Strained Foods for Baby**

You know Heinz quality in foods. You can have this same high standard in strained foods for baby. Insist on Heinz. Send for valuable baby diet book featured on page 286.

H. J. HEINZ CO., Pittsburgh, Pa.

**Try Shopping Among HYGEIA Advertisements**

*Baby deserves the best*

He's the lord of the manor—heart of the household—center of the domestic stage. Nothing is too good for your baby! That's why you should see that he eats Heinz Strained Foods. Most infants seem to prefer the garden flavor of these tasty dishes. And you pay no premium for their extra quality.... Remember—valuable minerals and vitamins are preserved to a high degree and Heinz Strained Foods bear the Seal of Acceptance of the American Medical Association's Council on Foods. 11 kinds —order a supply today!

**Child Problems,** homemaking on *Heinz Magazine of the Air,* half-hour radio program—Monday, Wednesday, and Friday, 11 a. m. E.S.T., Columbia Network.

**HEINZ 57**
ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods
**STRAINED FOODS**

WASHBURN CROSBY GOLD MEDAL FLOUR
GOLD MEDAL FLOUR

**RECIPES FOR YOU in every sack . . .**

"15 Prize Recipes" and a folder of Betty Crocker's recipes in every sack of Gold Medal Flour!—See advertisement inside back cover for details.

**Church's Pure Natural Grape Juice**

made from properly ripened grapes. Contains no added sugar, water or other substance whatsoever.

Free from the excess acid of unripened fruit.

**Church Grape Juice Company, Kennewick, Wash.**

**ASSURED HIGH QUALITY**

C-H-B CALIFORNIA HOME BRAND

Tomato Juice
Tomato Catsup
Chili Sauce

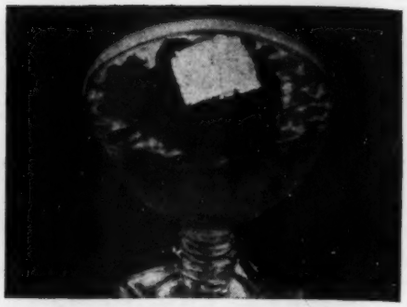
PLEASE MENTION HYGEIA WHEN WRITING ADVERTISERS

## *THE NEIGHBORS LEND A HAND*

*(Continued from page 259)*

eagerness these women set about absorbing this mass of information. Each pamphlet would have to be placed to the best advantage as they were much too valuable to be wasted or scattered promiscuously. Before long the workers were able to select just the right pamphlet for the individual. Each morning before starting their rounds the workers would select from the reserve stock their needs for the day: this book on prenatal care for Mrs. Jones; this leaflet on food economics for Mrs. Black; this pamphlet on how tuberculosis spreads for that old Mr. Drew who thinks his children are getting along perfectly all right and sees no need of having them tested for tuberculosis infection. Surely, here is a selective method of health education that brings needed information to a receptive audience! Each day brings an increasing number of requests for literature on every conceivable health topic. Unfortunately, not all of them can be met from the limited available supply, but the mere demand is wonderful evidence that even in the most tumble-down shanty there is a real desire for knowledge about health; a most worthwhile desire is this which the official health agency has not been able to sense because of the lack of facilities to make proper contact with these simple folk. The results from such intimate distribution cannot be measured in numbers. One pamphlet properly placed may save a human life, or it may accomplish more real results than 10,000 pieces of health literature broadcast in the usual manner.

But even if numbers do actually mean so little, there had to be reports. To make matters as simple as possible for these instructors in home hygiene, many of whom had never before kept records of any kind, the regular monthly report form used by the staff nurses in the city health department was abbreviated to fit the work of the project. Each day every worker marks on this report the various jobs she has done that day; at the end of the month the project clerk has only to add these reports together, and presto! the report of the whole project is ready. Each item of work has been carefully planned so that the assembled whole report will give a real picture of accomplishments. All during the month the project clerk must day by day collect, tabulate and file the information collected by the instructors; she must sort out for them the items they need when they need them. Big sheets and little sheets, tabu-



**Rennet-Custards Stimulate Appetite for MILK**

**Made in 3 minutes—no eggs, no baking, no boiling—digest easier than plain milk**

**"JUNKET" Rennet Powder** — Already sweetened and flavored for making an endless variety of rennet-custards. Just add to LUKEWARM milk—let set 10 minutes, then chill. Six tempting flavors:

Vanilla Chocolate Lemon
Orange Raspberry Maple

**"JUNKET" Rennet Tablets** — Not sweetened or flavored—add sugar and flavor to taste. More economical for making rennet-custards, easily digested milk foods for infants, invalids and convalescents. Also for making smoother ice cream with less cream in hand freezers.

**FREE Recipe Book**
—for 61 new desserts and ice creams —mail postcard to "THE 'JUNKET' FOLKS," Chr. Hansen's Laboratory, Inc., Dept. 333, Little Falls, N. Y.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

**PAMPHLETS ON "PATENT MEDICINES", QUACKS, ETC.**

Published by the Bureau of Investigation of the American Medical Association

| | |
|---|---|
| CANCER "CURES" AND "TREATMENTS" | Illustrated. 15 cents |
| CONSUMPTION "CURES," COUGH REMEDIES, ETC. | Illustrated. 15 cents |
| COSMETICS AND ALLIED PREPARATIONS | Illustrated. 15 cents |
| DEAFNESS "CURES" | Illustrated. 15 cents |
| EPILEPSY "CURES" AND "TREATMENTS" | Illustrated. 15 cents |
| FEMALE-WEAKNESS "CURES" | Illustrated. 15 cents |
| THE GREAT AMERICAN FRAUD | Illustrated. 25 cents |
| MECHANICAL NOSTRUMS | Illustrated. 15 cents |
| MEDICAL MAIL-ORDER CONCERNS | Illustrated. 25 cents |
| MINERAL WATERS | Illustrated. 10 cents |
| MISCELLANEOUS SPECIALISTS | Illustrated. 20 cents |
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| OBESITY "CURES" | Illustrated. 15 cents |
| PATENT MEDICINES | Illustrated. 15 cents |
| TESTIMONIALS | Illustrated. 10 cents |

**AMERICAN MEDICAL ASSOCIATION**
**535 North Dearborn Street • Chicago**

lations and summaries, progress data, pay rolls, attendance reports, all these and more keep the project clerk constantly on a treadmill of figures. At the close of the project both the W.P.A. and the local sponsor must have a definite record of everything that has been accomplished—and why.

So every month there is compiled a report showing the number of visits of the various kinds, the number of tuberculosis cases brought to medical attention, of children given toxoid and of new prenatal cases located and placed under care. After a while the total of these items grows large and imposing, and those in charge of the project feel that now more than ever before, use is being made of our modern knowledge of public health. But, in addition to all these valuable results, the really outstanding accomplishment of the project so far does not show up on the formal reports at all. It is the remarkable transformation in the workers themselves. Once more they have regained their hold on life; they feel once more that they have a real part in the community. No more are they drifting to an unknown port. Their facial expressions radiate their sense of well being, responsibility and service. Days in the open air have already meant clearer skins, brighter eyes and more erect posture. One sees them as they set out each morning "spic and span" in neat well fitting gray uniforms with their carefully manicured finger-nails and with hair attractively dressed. Even on a security wage some of them felt able to squeeze a permanent wave out of their first pay check. With all this it is difficult to believe that this is the same group of women that was assembled that dreary morning only a few months ago. Here is a group transformed from a community burden into a real community asset, women who have acquired an insight into the health problems of the city of which they are a part. They are eager to pass on to other women and to share with them their health knowledge and to put to use talents which they themselves did not realize they possessed.

Although the project has been started by the federal government as a part of the work relief program and is scheduled to continue on that basis for at least another year, the interest already manifested in the project by the city manager, the mayor and other local officials, supported by the community interest which the project has already aroused and which will no doubt increase as the work becomes more and more familiar to


ONLY THE VERY BEST
FOR HER ROYAL HIGHNESS

● Say "WHITE HOUSE" when you order evaporated milk for your children's milk-made dishes.

There is none better. It is safe, pure and so easily digested.

SOLD BY A&P STORES
FOOD STORES

DO YOU LIKE GOOD CREAM CHEESE?
HAVE YOUR DEALER SHOW YOU THE NAME
Breakstone's
WHEN HE CUTS YOUR ORDER

YOU KNOW HIM . .
but do you know the reasons why Cream of Wheat is the preferred cereal in millions of American homes? Some of the important facts are given on page 273. But why not make an actual trial?—50 generous servings at less than half a penny each!
The Cream of Wheat Corp. Minneapolis, Minn.

HEALTH PLAYS
*Reprinted from HYGEIA*

**The Trial of Jimmy Germ.**—8 characters. Set of 8 copies, 35 cents. Single copies, 10 cents each.

**On Board the S.S. Health.**—20 characters; time, 10 minutes. Set of 20 copies, $1.00. Single copy, 10 cents.

**The Good Health Elves.**—17 to 25 characters. Set of 17 copies, $2.00. Single copies, 15 cents each.

**The Gift a King Accepts.**—15 characters. Set of 15 copies, $1.10. Single copies, 10 cents each.

**The Friendly Brushes.**—11 characters. Set of 11 copies, 50 cents. Single copies, 10 cents each.

**The Magic Fluid (Diphtheria Antitoxin).**—8 characters, with chorus, "king's subjects," etc. Set of 8 copies, 35 cents. Single copies, 10 cents each.

*Send for free catalog describing other health material*

HYGEIA
535 North Dearborn Street CHICAGO

● WHENEVER SODIUM BICARBONATE *is prescribed . . .*
Remember that either Arm & Hammer or Cow Brand Baking Soda are Sodium Bicarbonate, U. S. P. See page 288 for details.
CHURCH & DWIGHT CO., Inc.
10 Cedar St., New York, N. Y.

PLEASE SEE PAGE 193

What's in a Can of Canned Food?
Modern knowledge is shattering many false ideas about canned foods. Be sure to read the highly informative series of ads in HYGEIA on values of canned foods. See second cover.
AMERICAN CAN COMPANY, New York City

the public at large, seems to indicate clearly a realization of the permanent need of such efforts as part of the work of the department of health, with the consequent assumption of the project on a purely local basis. Regardless of the future, however, there will remain, as foci of health education scattered over the city, women who in the routine of their daily lives cannot help but radiate through their whole sphere of contact and influence that dynamic force which will build community good health.

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### *DEATH TO DISEASE*

*(Continued from page 255)*

aspects of the disease, and the study will be aided by hospital records of more than 1,000 children. The plan adopted has been to follow the course of the disease from its earliest manifestations in the child through adult life in order to gain insight into its beginnings, course, prognosis and the effects of treatment by prolonged rest. A study of records and cases thus far have furnished the clue that the disease is prevalent in families and may be due to some inherited constitutional peculiarity.

Clinicians have been long interested in the problem of allergies, or individual physical peculiarities, and for this reason the Public Health Service plans an extensive study to cover a random group of from 3,000 to 5,000 school children. A nurse will visit the homes and obtain from the families as much information as possible on the signs of any allergic manifestations in the child and in his immediate family. Data from the survey should furnish information on the incidence, age change and other epidemiological features of the various types of sensitivity. In addition, an estimate may also be made of the economic and social consequences of the allergic diseases in a general population group.

A survey of its work shows that once a challenge in the form of a health menace arises, the Public Health Service girds itself in preparation to free the country from the host. The sword of science is at constant duel with the physical demons that plague mankind. Sometimes the Public Health research workers are able to make a clean thrust and vanquish the foe; more often they must be patient, contenting themselves with merely weakening the enemy. Despite the many setbacks of scientists and the many blind alleys into which they stray, science *is* wielding the upper hand, and diseases are gradually losing their deadliness.

**OUR BAKING SODA IS SODIUM BICARBONATE U.S.P.**

▼

SODIUM Bicarbonate is prescribed by physicians in the treatment of many pathological conditions. It is perhaps as frequently used as any other drug.

So it is well to keep in mind that two familiar old products that have been standbys in American homes for generations can be used with confidence whenever the diagnosis calls for Sodium Bicarbonate dosage or application—Arm & Hammer and Cow Brand Baking Soda which are both pure Sodium Bicarbonate — classified as such by the Council on Pharmacy and Chemistry of the American Medical Association.

These two widely known brands are identical and are obtainable almost everywhere in handy sealed containers at very low cost.

Their uniform purity, dependability, availability and economy commend them for use whenever Sodium Bicarbonate is prescribed.

**Business Established in 1846**

**Church & Dwight Co., Inc.**
**10 Cedar St., New York, N.Y.**

### FEEDING THE BABY

As soon as the baby is born the physician should be consulted with regard to feeding, and his advice should be followed at all times. There are certain rules and regulations attendant on the procedure of feeding which every mother should know. These were recently listed by the Children's Bureau, U. S. Department of Labor.

The best food for the baby in his first 6 or 7 months is his mother's milk, but whether the baby's mother nurses him or whether he is artificially fed, baby especially needs such foods.

Before the end of the first month the baby should begin to have cod liver oil or some other source of vitamin D. If you give him cod liver oil be sure that it has been tested for vitamin D. It is better to begin giving this at the end of the baby's second week, especially if the baby is artificially fed. Except in exceptionally warm, sunny climates both cod liver oil and sunlight are needed if the baby is to be protected from rickets.

Orange juice or tomato juice should be given to prevent scurvy and should be included in the diet of every baby by the end of the first month. If the baby is artificially fed the juice should be given earlier—at the end of the second week.

Cooked cereal may be given at the beginning of the fifth month. Egg yolk is usually started by this time although some doctors give it in the third month, or even earlier. Green vegetables should be introduced by the sixth month. Potatoes, baked, may be begun at the tenth month but must not take the place of green vegetables. Dry toast or zwieback may be included after the baby's first tooth has come. Stewed fruit, such as apple sauce or prune pulp, may be begun at the tenth month.

When the baby is 7 or 8 months old ask the doctor about weaning him and about what food to give him. Usually it is a mixture of whole milk (pasteurized), water and sugar, boiled from three to five minutes in a saucepan or cooked for twenty minutes in a double boiler. As a rule weaning should take about three weeks and should be completed by the end of the ninth month.

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Work done to secure better physical conditions, both in school and at home, is probably as significant for the morality of children as is any instruction that is given.

*—George D. Strayer.*